



# Product Catalog for Distribution 2011



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## Introduction

We are pleased to present the updated Product Catalog for Distribution 2011. This catalog outlines the full range of semiconductors available from Infineon Technologies through our distribution channel.

Reflecting the depth and range of our offering, this overview extends from communication devices and microcontrollers through power semiconductors and discretes to sensors and security solutions. For fast and easy reference, we have kept technical details to a minimum and added an overview of all device names and order codes at the back. Please refer to our data sheets, data books and user's manuals if you require in-depth technical data on a given product.

We work closely with our distributors to ensure that these products are available for rapid delivery. However, please be aware that individual distributors may not necessarily be authorized to offer the entire range of products outlined in this catalog. The choice of products held in stock and available for delivery is entirely at the discretion of the individual distributor. Please note that most products listed in this overview are RoHS-compliant. However, please check the actual status and availability with your distributor. Similarly, Infineon does not assume responsibility for the accuracy or completeness of the information contained in this overview.

For general information, please visit [www.infineon.com](http://www.infineon.com).

For a complete list of our distribution partners, please go to [www.infineon.com/distribution](http://www.infineon.com/distribution).

## Explanation of Symbols

- ▼ Newly included components
- Components not suitable for new design
- ◆ Products available through dedicated distributors
- SMD (Surface Mounted Devices)  
gray lines indicate SMDs
- ® Registered trademark
- TM Trademark

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MIFARE™ is a trademark of NXP B.V.

CanPAK™ uses DirectFET® technology licensed from International Rectifier Corporation.

DirectFET® is a registered trademark of International Rectifier Corporation.

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# Communication

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Wireless Communication ..... 9



Type	Ordering Code	Package	Description
<b>Wireless Communication</b>			
<b>Bluetooth®</b>			
PBA 31308 V2.1	SP000475400	LG-MLGA-54	UniStone: Bluetooth® 2.1 HCI based module with Enhanced Data Rate (EDR), tape & reel
▼ PBA 31308/2 V1.11	SP000614580	LG-MLGA-54	eUniStone: Fully integrated Bluetooth® 2.0 module with integrated stack for data transfer, v2.0 + Enhanced Data Rate (EDR), tape & reel
BT UniStone 2.01 Dongles	SP000515220	—	UniStone: PBA 31308 evaluation board (2 mainboards and 2 CF cards)
BT eUniStone Dongles	SP000523478	—	eUniStone: PBA 31308/2 evaluation board (2 mainboards and 2 CF cards)
PMB 8753/2	SP000358653	PG-WFSGA-65	eBMU: Fully integrated Bluetooth® device with integrated stack for data transfer, v2.0 + Enhanced Data Rate (EDR), tape & reel

### Digital Cordless Telephony (DECT)

Dear partner, Infineon is offering a complete product portfolio for DECT handsets, to get more information please contact your local IFX sales office.

### ◆ RF Power

Dear partner, Infineon is offering a complete product portfolio of RF power products, to get more information please contact your local IFX sales office.

### Tuner

Dear partner, Infineon is offering a complete product portfolio of Tuner products, to get more information please contact your local IFX sales office.

SMD = Surface Mounted Device



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## Microcontrollers

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Type	Ordering Code	Package	Description
<b>Microcontrollers, 8-bit</b>			
<b>XC800 Family XC822 &amp; XC824 Series</b>			
▼ SAF-XC822-1FRA AA-Step	SP000873390	PG-TSSOP-16-1	High performance XC800 core, based on industry standard 8051 architecture, 8-Kbyte boot ROM, 4-Kbyte program flash, 0.128-Kbyte data flash, automotive quality level, 256-byte RAM, 256-byte XRAM, capture/compare unit, three 16-bit timers/counters, four 10-bit ADC channels, embedded voltage regulator (EVR), programmable 16-bit watchdog timer, no multiplication/division unit (MDU), no LED and touch sense controller (LEDTSCU), 24-MHz clock frequency, -40°C to 85°C, tape & reel
▼ SAF-XC822-1FRI AA-Step	SP000795354	PG-TSSOP-16-1	as SAF-XC822-1FRA, industry quality level, tape & reel
▼ SAK-XC822-1FRA AA-Step	SP000873388	PG-TSSOP-16-1	as SAF-XC822-1FRA, -40°C to 125°C, tape & reel
▼ SAF-XC822M-1FRI AA-Step	SP000771768	PG-TSSOP-16-1	as SAF-XC822-1FRA, industry quality level, multiplication/division unit (MDU), no LED and touch sense controller (LEDTSCU), tape & reel
▼ SAF-XC822MT-1FRA AA-Step	SP000873396	PG-TSSOP-16-1	as SAF-XC822-1FRA, multiplication/division unit (MDU), LED and touch sense controller (LEDTSCU), tape & reel
▼ SAF-XC822MT-1FRI AA-Step	SP000795358	PG-TSSOP-16-1	as SAF-XC822MT-1FRA, industry quality level, tape & reel
▼ SAK-XC822MT-1FRA AA-Step	SP000877976	PG-TSSOP-16-1	as SAF-XC822MT-1FRA, -40°C to 125°C, tape & reel
▼ SAF-XC822T-0FRI AA-Step	SP000795350	PG-TSSOP-16-1	as SAF-XC822-1FRI, 2-Kbyte program flash, no multiplication/division unit (MDU), LED and touch sense controller (LEDTSCU), tape & reel
▼ SAF-XC822T-1FRI AA-Step	SP000797572	PG-TSSOP-16-1	as SAF-XC822-1FRI, no multiplication/division unit (MDU), LED and touch sense controller (LEDTSCU), tape & reel
▼ SAF-XC824M-1FGI AA-Step	SP000771770	PG-DSO-20-45	as SAF-XC822-1FRI, multiplication/division unit (MDU), no LED and touch sense controller (LEDTSCU), tape & reel
▼ SAK-XC824M-1FGI AA-Step	SP000776846	PG-DSO-20-45	as SAF-XC824-1FGI, -40°C to 125°C, tape & reel
▼ SAF-XC824MT-1FGI AA-Step	SP000795362	PG-DSO-20-45	as SAF-XC824M-1FRI, multiplication/division unit (MDU), LED and touch sense controller (LEDTSCU), tape & reel
<b>XC835 &amp; 836 Series</b>			
▼ SAF-XC835MT-2FGI ABStep	SP000843552	PG-DSO-24-1	High performance XC800 core, based on industry standard 8051 architecture, 8-Kbyte boot ROM, 8-Kbyte program flash, 0.128-Kbyte data flash, industry quality level, 256-byte RAM, 256-byte XRAM, capture/compare unit, three 16-bit timers/counters, eight 10-bit ADC channels, 16-bit vector computer for Field-Oriented Control (FOC), programmable 16-bit watchdog timer, multiplication/division unit (MDU) and CORDIC module, LED and touch sense controller (LEDTSCU), 24-MHz clock frequency, -40°C to 85°C, tape & reel
▼ SAF-XC836-2FRI ABStep	SP000843562	PG-TSSOP-28-1	High performance XC800 core, based on industry standard 8051 architecture, 8-Kbyte boot ROM, 8-Kbyte program flash, 0.128-Kbyte data flash, industry quality level, 256-byte RAM, 256-byte XRAM, capture/compare unit, three 16-bit timers/counters, eight 10-bit ADC channels, 16-bit vector computer for Field-Oriented Control (FOC), programmable 16-bit watchdog timer, no multiplication/division unit (MDU), no LED and touch sense controller (LEDTSCU), 24-MHz clock frequency, -40°C to 85°C, tape & reel
▼ SAF-XC836M-1FRI ABStep	SP000843556	PG-TSSOP-28-1	as SAF-XC836-2FRI, 4-Kbyte program flash, multiplication/division unit (MDU) and CORDIC module, no LED and touch sense controller (LEDTSCU), tape & reel

SMD = Surface Mounted Device

# Microcontrollers

## Microcontrollers, 8-bit

### XC800 Family XC835 & 836 Series

▼ SAF-XC836M-2FRI ABStep	SP000843558	PG-TSSOP-28-1	as SAF-XC836-2FRI, multiplication/division unit (MDU) and CORDIC module, no LED and touch sense controller (LEDTSCU), tape & reel
▼ SAF-XC836MT-2FRI ABStep	SP000843560	PG-TSSOP-28-1	as SAF-XC836M-2FRI, multiplication/division unit (MDU) and CORDIC module, LED and touch sense controller (LEDTSCU), tape & reel
▼ SAF-XC836T-2FRI ABStep	SP000843554	PG-TSSOP-28-1	as SAF-XC836MT-2FRI, no multiplication/division unit (MDU) and CORDIC module, LED and touch sense controller (LEDTSCU), tape & reel

### XC858 Series

▼ SAF-XC858CA-9FFI ACStep	SP000777168	PG-LQFP-64-1	High performance XC800 core, based on industry standard 8051 architecture, 8-Kbyte boot ROM, 36-Kbyte program flash, up to 4-Kbyte data flash, industry quality level, 256-byte RAM, 3-Kbyte XRAM, capture/compare unit, three 16-bit timers/counters, eight 10-bit ADC channels, programmable 16-bit watchdog timer, MultiCAN with two nodes, 27-MHz clock frequency, -40°C to 85°C, tape & reel
▼ SAF-XC858CA-16FFI ACStep	SP000777174	PG-LQFP-64-1	as SAF-XC858CA-9FFI, 64-Kbyte program flash, tape & reel

### XC864 & XC866 Series

SAF-XC864L-1FRI 3V AA-Step	SP000449898	PG-TSSOP-20-1	High performance XC800 core, based on industry standard 8051 architecture, 8-Kbyte boot ROM, 4-Kbyte program flash, up to 8-Kbyte data flash, industry quality level, 256-byte RAM, 512-byte XRAM, capture/compare unit, three 16-bit timers/counters, 10-bit ADC, embedded voltage regulator (EVR), watchdog circuit with RESET generation, watchdog timer, 3-V power supply, -40°C to 85°C, tape & reel
SAF-XC864L-1FRI 5V AA-Step	SP000449896	PG-TSSOP-20-1	as SAF-XC864-1FRI 3V, 5-V power supply, tape & reel
SAK-XC864L-1FRI 5V AA-Step	SP000449902	PG-TSSOP-20-1	as SAF-XC864-1FRI 5V, -40°C to 125°C, tape & reel
SAA-XC866-1FRA AB-Step	SP000294874	PG-TSSOP-38-1	High performance XC800 core, based on industry standard 8051 architecture, 8-Kbyte boot ROM, 4-Kbyte program flash, up to 8-Kbyte data flash, automotive quality level, 256-byte RAM, 512-byte XRAM, capture/compare unit, three 16-bit timers/counters, 10-bit ADC, port- and core voltage watchdog circuit with RESET generation, watchdog timer, -40°C to 140°C, tape & reel
SAK-XC866-1FRA AB-Step	SP000235420	PG-TSSOP-38-1	as SAA-XC866-1FRA, -40°C to 125°C, tape & reel
SAF-XC866-1FRI AB-Step	SP000244527	PG-TSSOP-38-1	as SAA-XC866-1FRA, industry quality level, -40°C to 85°C, tape & reel
SAK-XC866-1FRI AB-Step	SP000244528	PG-TSSOP-38-1	as SAF-XC866-1FRI, -40°C to 125°C, tape & reel
SAA-XC866-2FRA BE-Step	SP000281789	PG-TSSOP-38-1	as SAF-XC866-1FRA, 8-Kbyte program flash, -40°C to 140°C, tape & reel
SAF-XC866-2FRA BE-Step	SP000281796	PG-TSSOP-38-1	as SAA-XC866-1FRA, -40°C to 85°C, tape & reel
SAK-XC866-2FRA BE-Step	SP000272971	PG-TSSOP-38-1	as SAF-XC866-2FRA, -40°C to 125°C, tape & reel

SMD = Surface Mounted Device



## Microcontrollers, 8-bit

**XC800 Family**  
**XC864 & XC866 Series**  
 (cont'd)

SAF-XC866-2FRI BE-Step	SP000245777	PG-TSSOP-38-1	as SAF-XC866-2FRA, industry quality level, tape & reel
SAK-XC866-2FRI BE-Step	SP000245783	PG-TSSOP-38-1	as SAF-XC866-2FRI, -40°C to 125°C, tape & reel
SAA-XC866-4FRA BE-Step	SP000281792	PG-TSSOP-38-1	as SAA-XC866-2FRA, 16-Kbyte program flash, tape & reel
SAF-XC866-4FRA BE-Step	SP000281799	PG-TSSOP-38-1	as SAA-XC866-2FRA, -40°C to 85°C, tape & reel
SAK-XC866-4FRA BE-Step	SP000245770	PG-TSSOP-38-1	as SAF-XC866-4FRA, -40°C to 125°C, tape & reel
SAF-XC866-4FRI BE-Step	SP000245780	PG-TSSOP-38-1	as SAF-XC866-4FRA, industry quality level, tape & reel
SAF-XC866-4FRI 3V BE-Step	SP000438080	PG-TSSOP-38-1	as SAF-XC866-4FRI, 3-V power supply, tape & reel
SAK-XC866-4FRI BE-Step	SP000245786	PG-TSSOP-38-1	as SAF-XC866-4FRI, -40°C to 125°C, tape & reel
SAF-XC866-2RRA AB-Step	SP000232712	PG-TSSOP-38-1	High performance XC800 core, based on industry standard 8051 architecture, 8-Kbyte ROM, 8-Kbyte boot ROM, 8-Kbyte program flash, up to 8-Kbyte data flash, automotive quality level, 256-byte RAM, 512-byte XRAM, capture/compare unit, three 16-bit timers/counters, 10-bit ADC, port- and core voltage watchdog circuit with RESET generation, watchdog timer, -40°C to 85°C, tape & reel
SAK-XC866-2RRA AB-Step	SP000232708	PG-TSSOP-38-1	as SAF-XC866-2RRA, -40°C to 125°C, tape & reel
SAA-XC866-4RRA AB-Step	SP000266176	PG-TSSOP-38-1	as SAF-XC866-2RRA, 16-Kbyte ROM, -40°C to 140°C, tape & reel
SAF-XC866-4RRA AB-Step	SP000232710	PG-TSSOP-38-1	as SAA-XC866-4RRA, -40°C to 85°C, tape & reel
SAK-XC866-4RRA AB-Step	SP000232706	PG-TSSOP-38-1	as SAF-XC866-4RRA, -40°C to 125°C, tape & reel

SMD = Surface Mounted Device

# Microcontrollers

Type	Ordering Code	Package	Description
<b>Microcontrollers, 8-bit</b>			
<b>XC866L Series</b>			
SAA-XC866L-1FRA AB-Step	SP000294884	PG-TSSOP-38-1	High performance XC800 core, based on industry standard 8051 architecture, 8-Kbyte boot ROM, 4-Kbyte program flash, up to 8-Kbyte data flash, automotive quality level, 256-byte RAM, 512-byte XRAM, capture/compare unit, three 16-bit timers/counters, 10-bit ADC, port- and core voltage watchdog circuit with RESET generation, watchdog timer, with LIN BSL support, -40°C to 140°C, tape & reel
SAK-XC866L-1FRA AB-Step	SP000235421	PG-TSSOP-38-1	as SAA-XC866L-1FRA, -40°C to 125°C, tape & reel
SAA-XC866L-2FRA BE-Step	SP000281790	PG-TSSOP-38-1	as SAA-XC866L-1FRA, 8-Kbyte flash (4-Kbyte program flash, 4-Kbyte data flash), tape & reel
SAF-XC866L-2FRA BE-Step	SP000281797	PG-TSSOP-38-1	as SAA-XC866L-2FRA, -40°C to 85°C, tape & reel
SAK-XC866L-2FRA BE-Step	SP000245768	PG-TSSOP-38-1	as SAF-XC866L-2FRA, -40°C to 125°C, tape & reel
SAF-XC866L-2FRI BE-Step	SP000245778	PG-TSSOP-38-1	as SAF-XC866L-2FRA, industry quality level, tape & reel
SAK-XC866L-2FRI BE-Step	SP000245784	PG-TSSOP-38-1	as SAF-XC866L-2FRI, -40°C to 125°C, tape & reel
SAA-XC866L-4FRA BE-Step	SP000281793	PG-TSSOP-38-1	as SAA-XC866L-2FRA, 16-Kbyte flash (12-Kbyte program flash, 4-Kbyte data flash), tape & reel
SAF-XC866L-4FRA BE-Step	SP000281800	PG-TSSOP-38-1	as SAA-XC866L-4FRA, -40°C to 85°C, tape & reel
SAK-XC866L-4FRA BE-Step	SP000245771	PG-TSSOP-38-1	as SAF-XC866L-4FRA, -40°C to 125°C, tape & reel
SAK-XC866L-4FRA 3V BE-Step	SP000442054	PG-TSSOP-38-1	as SAK-XC866L-4FRA, 3-V power supply, tape & reel
SAF-XC866L-4FRI BE-Step	SP000245781	PG-TSSOP-38-1	as SAF-XC866L-4FRA, industry quality level, tape & reel
SAK-XC866L-4FRI BE-Step	SP000245787	PG-TSSOP-38-1	as SAF-XC866L-4FRI, -40°C to 125°C, tape & reel

SMD = Surface Mounted Device

Type	Ordering Code	Package	Description
<b>Microcontrollers, 8-bit</b>			
<b>XC800 Family XC878 Series</b>			
▼ SAF-XC878-13FFA 5V AC-Step	SP000756808	PG-LQFP-64-1	High performance XC800 core, based on industry standard 8051 architecture, 52-Kbyte flash memory, automotive quality level, 256-byte RAM, 3-Kbyte XRAM, capture/compare unit (CCU6), 16-bit timers/counters, 10-bit ADC, port- and core voltage watchdog circuit with RESET generation, watchdog timer, on-chip debug support (JTAG), 26.7-MHz clock frequency, 5-V power supply, -40°C to 85°C, tape & reel
▼ SAK-XC878-13FFA 5V AC-Step	SP000847062	PG-LQFP-64-1	as SAF-XC878-13FFA 5V , -40°C to 125°C, tape & reel
▼ SAF-XC878-16FFI 5V AC-Step	SP000696772	PG-LQFP-64-1	as SAF-XC878-13FFI 5V, 64-Kbyte flash memory, industry quality level, tape & reel
▼ SAX-XC878-16FFA 3V3 AC-Step	SP000447324	PG-LQFP-64-1	as SAF-XC878-16FFI 5V , automotive quality level, 3.3-V power supply, -40°C to 105°C, tape & reel
▼ SAK-XC878-16FFA 5V AC-Step	SP000847066	PG-LQFP-64-1	as SAF-XC878-16FFA 5V, -40°C to 105°C, tape & reel
▼ SAX-XC878-16FFA 5V AC-Step	SP000447308	PG-LQFP-64-1	as SAX-XC878-16FFA 3V3, 5-V power supply, -40°C to 105°C, tape & reel
▼ SAK-XC878CLM-16FFA5V AC-Step	SP000761974	PG-LQFP-64-1	High performance XC800 core, based on industry standard 8051 architecture, 64-Kbyte flash memory, automotive quality level, 256-byte RAM, 3-Kbyte XRAM, capture/compare unit (CCU6), 16-bit timers/counters, 10-bit ADC, port- and core voltage watchdog circuit with RESET generation, watchdog timer, on-chip debug support (JTAG), 26.7-MHz clock frequency, with LIN BSL support and MDU module, 5-V power supply, -40°C to 125°C, tape & reel
▼ SAX-XC878CLM-16FFA5V AC-Step	SP000608972	PG-LQFP-64-1	as SAK-XC878CLM-16FFA 5V, -40°C to 105°C, tape & reel
▼ SAF-XC878CM-13FFA 5V AC-Step	SP000772212	PG-LQFP-64-1	High performance XC800 core, based on industry standard 8051 architecture, 52-Kbyte flash memory, automotive quality level, 256-byte RAM, 3-Kbyte XRAM, capture/compare unit (CCU6), 16-bit timers/counters, 10-bit ADC, port- and core voltage watchdog circuit with RESET generation, watchdog timer, on-chip debug support (JTAG), 26.7-MHz clock frequency, with CAN module and MDU module, 5-V power supply, -40°C to 85°C, tape & reel
▼ SAF-XC878CM-13FFI 5V AC-Step	SP000696784	PG-LQFP-64-1	as SAF-XC878CM-13FFA 5V, industry quality level, tape & reel
▼ SAX-XC878CM-13FFA 5V AC-Step	SP000700824	PG-LQFP-64-1	as SAF-XC878CM-13FFA 5V, -40°C to 105°C, tape & reel
▼ SAF-XC878CM-16FFA 5V AC-Step	SP000772210	PG-LQFP-64-1	as SAF-XC878CM-16FFA 5 V , 64-Kbyte flash memory, tape & reel
▼ SAK-XC878CM-16FFA 5V AC-Step	SP000847064	PG-LQFP-64-1	as SAF-XC878CM-16FFA 5 V, -40°C to 125°C, tape & reel
▼ SAX-XC878CM-16FFA 5V AC-Step	SP000409562	PG-LQFP-64-1	as SAK-XC878CM-16FFA 5V, -40°C to 105°C, tape & reel
▼ SAF-XC878CM-16FFI 3V3 AC-Step	SP000696786	PG-LQFP-64-1	as SAF-XC878CM-13FFI 5V, 64-Kbyte flash memory, 3.3-V power supply, tape & reel
▼ SAF-XC878CM-16FFI 5V AC-Step	SP000679860	PG-LQFP-64-1	as SAF-XC878CM-16FFI 3V3, 5-V power supply, tape & reel
▼ SAF-XC878M-13FFI 3V3 AC-Step	SP000696774	PG-LQFP-64-1	High performance XC800 core, based on industry standard 8051 architecture, 52-Kbyte flash memory, industry quality level, 256-byte RAM, 3-Kbyte XRAM, capture/compare unit (CCU6), 16-bit timers/counters, 10-bit ADC, port- and core voltage watchdog circuit with RESET generation, watchdog timer, on-chip debug support (JTAG), 26.7-MHz clock frequency, with MDU module, 3.3-V power supply, -40°C to 85°C, tape & reel

SMD = Surface Mounted Device

# Microcontrollers

Type	Ordering Code	Package	Description
<b>Microcontrollers, 8-bit</b>			
<b>XC800 Family</b>			
<b>XC878 Series</b>			
(cont'd)			
▼ SAF-XC878M-13FFI 5V AC-Step	SP000696776	PG-LQFP-64-1	as SAF-XC878M-13FFI 3V3, 5-V power supply, tape & reel
▼ SAF-XC878M-16FFI 3V3 AC-Step	SP000696778	PG-LQFP-64-1	as SAF-XC878M-13FFI 3V3, 64-Kbyte flash memory, tape & reel
SAF-XC878M-16FFI 5V AC-Step	SP000696780	PG-LQFP-64-1	as SAF-XC878M-16FFI 3V3, 5-V power supply, tape & reel
▼ SAX-XC878LM-13FFA 5V AC-Step	SP000447320	PG-LQFP-64-1	High performance XC800 core, based on industry standard 8051 architecture, 52-Kbyte flash memory, automotive quality level, 256-byte RAM, 3-Kbyte XRAM, capture/compare unit (CCU6), 16-bit timers/counters, 10-bit ADC, port- and core voltage watchdog circuit with RESET generation, watchdog timer, on-chip debug support (JTAG), 26.7-MHz clock frequency, with LIN BSL support and MDU module, 5-V power supply, -40°C to 105°C, tape & reel
▼ SAK-XC878LM-16FFA 5V AC-Step	SP000844190	PG-LQFP-64-1	as SAX-XC878L-13FFA 5V, 64-Kbyte flash memory, -40°C to 125°C, tape & reel
▼ SAX-XC878LM-16FFA 5V AC-Step	SP000447318	PG-LQFP-64-1	as SAK-XC878L-13FFA 5V, -40°C to 105°C, tape & reel

SMD = Surface Mounted Device

Type	Ordering Code	Package	Description
<b>Microcontrollers, 8-bit</b>			
<b>XC800 Family XC886 Series</b>			
SAA-XC886-6FFA AC-Step	SP000368483	PG-TQFP-48-4	High performance XC800 core, based on industry standard 8051 architecture, 24-Kbyte flash memory, automotive quality level, 256-byte RAM, 1536-byte XRAM, capture/compare unit (CCU6), 16-bit timers/counters, 10-bit ADC, port- and core voltage watchdog circuit with RESET generation, watchdog timer, on-chip debug support (JTAG), -40°C to 140°C, tape & reel
SAK-XC886-6FFA 5V AC-Step	SP000210978	PG-TQFP-48-4	as SAA-XC886-6FFA, -40°C to 125°C, tape & reel
SAA-XC886-8FFA AC-Step	SP000366155	PG-TQFP-48-4	High performance XC800 core, based on industry standard 8051 architecture, 32-Kbyte flash memory, automotive quality level, 256-byte RAM, 1536-byte XRAM, capture/compare unit (CCU6), 16-bit timers/counters, 10-bit ADC, port- and core voltage watchdog circuit with RESET generation, watchdog timer, on-chip debug support (JTAG), -40°C to 140°C, tape & reel
SAK-XC886-8FFA 5V AC-Step	SP000210971	PG-TQFP-48-4	as SAA-XC886-8FFA, -40°C to 125°C, tape & reel
▼ SAL-XC886-8FFA 5V AC-Step	SP000844274	PG-TQFP-48-4	as SAK-XC886-8FFA, -40°C to 150°C, tape & reel
SAF-XC886-8FFI 5V AC-Step	SP000607054	PG-TQFP-48-4	as SAK-XC886-8FFA, industry quality level, -40°C to 85°C, tape & reel
SAK-XC886-8FFI 5V AC-Step	SP000607058	PG-TQFP-48-4	as SAF-XC886-8FFI, -40°C to 125°C, tape & reel
SAF-XC886C-6FFA 5V AC-Step	SP000607068	PG-TQFP-48-4	High performance XC800 core, based on industry standard 8051 architecture, 24-Kbyte flash memory, automotive quality level, 256-byte RAM, 1536-byte XRAM, MultiCAN with 2 nodes, capture/compare unit (CCU6), 16-bit timers/counters, 10-bit ADC, port- and core voltage watchdog circuit with RESET generation, watchdog timer, on-chip debug support (JTAG), 5-V power supply, -40°C to 85°C, tape & reel
SAK-XC886C-6FFA 5V AC-Step	SP000607004	PG-TQFP-48-4	as SAF-XC886C-6FFA, -40°C to 125°C, tape & reel
SAF-XC886C-6FFI 3V3 AC-Step	SP000655548	PG-TQFP-48-4	as SAF-XC886C-6FFA, industry quality level, 3.3-V power supply, tape & reel
SAF-XC886C-6FFI 5V AC-Step	SP000607056	PG-TQFP-48-4	as SAF-XC886C-6FFA, industry quality level, 5-V power supply, tape & reel
SAK-XC886C-6FFI 5V AC-Step	SP000253369	PG-TQFP-48-4	as SAF-XC886C-6FFI, -40°C to 125°C, tape & reel
SAA-XC886C-8FFA AC-Step	SP000366157	PG-TQFP-48-4	High performance XC800 core, based on industry standard 8051 architecture, 32-Kbyte flash memory, automotive quality level, 256-byte RAM, 1536-byte XRAM, MultiCAN with 2 nodes, capture/compare unit (CCU6), 16-bit timers/counters, 10-bit ADC, port- and core voltage watchdog circuit with RESET generation, watchdog timer, on-chip debug support (JTAG), -40°C to 140°C, tape & reel
SAK-XC886C-8FFA 5V AC-Step	SP000606668	PG-TQFP-48-4	as SAA-XC886C-8FFA, 5-V power supply, -40°C to 85°C, tape & reel
SAF-XC886C-8FFI 5V AC-Step	SP000607010	PG-TQFP-48-4	as SAF-XC886C-8FFA, industry quality level, tape & reel
SAF-XC886C-8FFI 5V AC-Step	SP000607010	PG-TQFP-48-4	as SAF-XC886C-8FFA, industry quality level, tape & reel

SMD = Surface Mounted Device

# Microcontrollers

Type	Ordering Code	Package	Description
<b>Microcontrollers, 8-bit</b>			
<b>XC800 Family XC886CLM Series</b>			
SAF-XC886CLM-6FFA 5V AC-Step	SP000254472	PG-TQFP-48-4	High performance XC800 core, based on industry standard 8051 architecture, 24-Kbyte flash memory, automotive quality level, 256-byte RAM, 1536-byte XRAM, MultiCAN with 2 nodes, capture/compare unit (CCU6), 16-bit timers/counters, 10-bit ADC, port- and core voltage watchdog circuit with RESET generation, watchdog timer, on-chip debug support (JTAG), with LIN BSL support and MDU module, -40°C to 85°C, tape & reel
SAA-XC886CLM-8FFA AC-Step	SP000618282	PG-TQFP-48-4	as SAF-XC886CLM-6FFA, 32-Kbyte flash memory, -40°C to 140°C, tape & reel
SAK-XC886CLM-8FFA 5V AC-Step	SP000606750	PG-TQFP-48-4	as SAA-XC886CLM-8FFA, -40°C to 125°C, tape & reel
▼ SAL-XC886CLM-8FFA 5V AC-Step	SP000829526	PG-TQFP-48-4	as SAK-XC886CLM-8FFA, -40°C to 150°C, tape & reel

SMD = Surface Mounted Device

Type	Ordering Code	Package	Description
<b>Microcontrollers, 8-bit</b>			
<b>XC800 Family XC886CM Series</b>			
SAF-XC886CM-6FFA 5V AC-Step	SP000254473	PG-TQFP-48-4	High performance XC800 core, based on industry standard 8051 architecture, 24-Kbyte flash memory, automotive quality level, 256-byte RAM, 1536-byte XRAM, MultiCAN with 2 nodes, capture/compare unit (CCU6), 16-bit timers/counters, 10-bit ADC, port- and core voltage watchdog circuit with RESET generation, watchdog timer, on-chip debug support (JTAG), 5-V power supply, with MDU module, -40°C to 85°C, tape & reel
SAF-XC886CM-6RFA	SP000254732	PG-TQFP-48-4	High performance XC800 core, based on industry standard 8051 architecture, 24-Kbyte ROM, automotive quality level, 256-byte RAM, 1536-byte XRAM, MultiCAN with 2 nodes, capture/compare unit (CCU6), 16-bit timers/counters, 10-bit ADC, port- and core voltage watchdog circuit with RESET generation, watchdog timer, on-chip debug support (JTAG), with MDU module, -40°C to 85°C, tape & reel
SAK-XC886CM-6RFA 5V AA-Step	SP000245804	PG-TQFP-48-4	as SAF-XC886CM-6RFA, 5-V power supply, -40°C to 125°C, tape & reel
SAA-XC886CM-8FFA AC-Step	SP000639468	PG-TQFP-48-4	High performance XC800 core, based on industry standard 8051 architecture, 32-Kbyte flash memory, automotive quality level, 256-byte RAM, 1536-byte XRAM, MultiCAN with 2 nodes, capture/compare unit (CCU6), 16-bit timers/counters, 10-bit ADC, port- and core voltage watchdog circuit with RESET generation, watchdog timer, on-chip debug support (JTAG), with MDU module, -40°C to 140°C, tape & reel
SAK-XC886CM-8FFA 3V3 AC-Step	SP000607082	PG-TQFP-48-4	as SAA-XC886CM-8FFA, -40°C to 125°C, 3.3-V power supply, tape & reel
▼ SAL-XC886CM-8FFA AC-Step	SP000844270	PG-TQFP-48-4	as SAA-XC886CM-8FFA, -40°C to 150°C, tape & reel
SAK-XC886CM-8FFA 5V AC-Step	SP000606964	PG-TQFP-48-4	as SAF-XC886CM-8FFA, -40°C to 125°C, tape & reel
SAF-XC886CM-8FFI 3V3 AC-Step	SP000305078	PG-TQFP-48-4	as SAF-XC886CM-8FFA, industry quality level, 3.3-V power supply, tape & reel
SAF-XC886CM-8FFI 5V AC-Step	SP000607014	PG-TQFP-48-4	as SAF-XC886CM-8FFI 3V3, 5-V power supply, tape & reel
SAF-XC886CM-8RFA AA-Step	SP000235443	PG-TQFP-48-4	High performance XC800 core, based on industry standard 8051 architecture, 32-Kbyte ROM, automotive quality level, 256-byte RAM, 1536-byte XRAM, MultiCAN with 2 nodes, capture/compare unit (CCU6), 16-bit timers/counters, 10-bit ADC, port- and core voltage watchdog circuit with RESET generation, watchdog timer, on-chip debug support (JTAG), with MDU module, -40°C to 85°C, tape & reel
SAK-XC886CM-8RFA 5V AA-Step	SP000245801	PG-TQFP-48-4	as SAF-XC886CM-8RFA, 5-V power supply, -40°C to 125°C, tape & reel

SMD = Surface Mounted Device

# Microcontrollers

Type	Ordering Code	Package	Description
<b>Microcontrollers, 8-bit</b>			
<b>XC800 Family XC886LM Series</b>			
SAA-XC886LM-6FFA AC-Step	SP000368484	PG-TQFP-48-4	High performance XC800 core, based on industry standard 8051 architecture, 24-Kbyte flash memory, automotive quality level, 256-byte RAM, 1536-byte XRAM, capture/compare unit (CCU6), 16-bit timers/counters, 10-bit ADC, port- and core voltage watchdog circuit with RESET generation, watchdog timer, on-chip debug support (JTAG), with LIN BSL support and MDU module, -40°C to 140°C, tape & reel
SAK-XC886LM-6FFA 5V AC-Step	SP000606754	PG-TQFP-48-4	as SAA-XC886LM-6FFA, 5-V power supply, -40°C to 125°C, tape & reel
SAF-XC886LM-6FFI 5V AC-Step	SP000607050	PG-TQFP-48-4	as SAK-XC886LM-6FFA, industry quality level, -40°C to 85°C, tape & reel
SAA-XC886LM-8FFA AC-Step	SP000368485	PG-TQFP-48-4	High performance XC800 core, based on industry standard 8051 architecture, 32-Kbyte flash memory, automotive quality level, 256-byte RAM, 1536-byte XRAM, capture/compare unit (CCU6), 16-bit timers/counters, 10-bit ADC, port- and core voltage watchdog circuit with RESET generation, watchdog timer, on-chip debug support (JTAG), with LIN BSL support and MDU module, -40°C to 140°C, tape & reel
SAF-XC886LM-8FFA 5V AC-Step	SP000210967	PG-TQFP-48-4	as SAA-XC886LM-8FFA, 5-V power supply, -40°C to 85°C, tape & reel
SAK-XC886LM-8FFA 5V AC-Step	SP000606752	PG-TQFP-48-4	as SAF-XC886LM-8FFA, -40°C to 125°C, tape & reel
▼ SAL-XC886LM-8FFA 5V AC-Step	SP000844272	PG-TQFP-48-4	as SAK-XC886LM-8FFA, -40°C to 150°C, tape & reel
SAF-XC886LM-8FFI 5V AC-Step	SP000607052	PG-TQFP-48-4	as SAF-XC886LM-8FFI, industry quality level, tape & reel

SMD = Surface Mounted Device



Type	Ordering Code	Package	Description
<b>Microcontrollers, 8-bit</b>			
<b>XC800 Family XC888 Series</b>			
SAK-XC888-6FFA 5V AC-Step	SP000210995	PG-TQFP-64-8	High performance XC800 core, based on industry standard 8051 architecture, 24-Kbyte flash memory, automotive quality level, 256-byte RAM, 1536-byte XRAM, capture/compare unit (CCU6), 16-bit timers/counters, 10-bit ADC, port- and core voltage watchdog circuit with RESET generation, watchdog timer, on-chip debug support (JTAG), 5-V power supply, -40°C to 125°C, tape & reel
SAF-XC888-6FFI 5V AC-Step	SP000607062	PG-TQFP-64-8	as SAK-XC888-6FFA, industry quality level, -40°C to 85°C, tape & reel
SAK-XC888-6FFI 5V AC-Step	SP000253410	PG-TQFP-64-8	as SAF-XC888-6FFI, -40°C to 125°C, tape & reel
SAF-XC888-8FFA 5V AC-Step	SP000210986	PG-TQFP-64-8	High performance XC800 core, based on industry standard 8051 architecture, 32-Kbyte flash memory, automotive quality level, 256-byte RAM, 1536-byte XRAM, capture/compare unit (CCU6), 16-bit timers/counters, 10-bit ADC, port- and core voltage watchdog circuit with RESET generation, watchdog timer, on-chip debug support (JTAG), 5-V power supply, -40°C to 85°C, tape & reel
SAK-XC888-8FFA 5V AC-Step	SP000210992	PG-TQFP-64-8	as SAF-XC888-8FFA, -40°C to 125°C, tape & reel
SAF-XC888-8FFI 5V AC-Step	SP000646588	PG-TQFP-64-8	as SAF-XC888-8FFA, industry quality level, tape & reel
SAK-XC888-8FFI 5V AC-Step	SP000253412	PG-TQFP-64-8	as SAF-XC888-8FFI, -40°C to 125°C, tape & reel
SAF-XC888C-6FFA 5V AC-Step	SP000257469	PG-TQFP-64-8	High performance XC800 core, based on industry standard 8051 architecture, 24-Kbyte flash memory, automotive quality level, 256-byte RAM, 1536-byte XRAM, MultiCAN with 2 nodes, capture/compare unit (CCU6), 16-bit timers/counters, 10-bit ADC, port- and core voltage watchdog circuit with RESET generation, watchdog timer, on-chip debug support (JTAG), 5-V power supply, -40°C to 85°C, tape & reel
SAK-XC888C-8FFA 5V AC-Step	SP000606958	PG-TQFP-64-8	as SAF-XC888C-6FFA 5V, 32-Kbyte flash memory, -40°C to 125°C, tape & reel

SMD = Surface Mounted Device

# Microcontrollers

Type	Ordering Code	Package	Description
<b>Microcontrollers, 8-bit</b>			
<b>XC800 Family XC888CLM Series</b>			
SAF-XC888CLM-6FFA 5V AC-Step	SP000257467	PG-TQFP-64-8	High performance XC800 core, based on industry standard 8051 architecture, 24-Kbyte flash memory, automotive quality level, 256-byte RAM, 1536-byte XRAM, MultiCAN with 2 nodes, capture/compare unit (CCU6), 16-bit timers/counters, 10-bit ADC, port- and core voltage watchdog circuit with RESET generation, watchdog timer, on-chip debug support (JTAG), 5-V power supply, with LIN BSL support and MDU module, -40°C to 85°C, tape & reel
SAK-XC888CLM-6FFA 5V AC-Step	SP000245821	PG-TQFP-64-8	as SAF-XC888CLM-6FFA, -40°C to 125°C, tape & reel
SAK-XC888CLM-8FFA 5V AC-Step	SP000606756	PG-TQFP-64-8	High performance XC800 core, based on industry standard 8051 architecture, 32-Kbyte flash memory, automotive quality level, 256-byte RAM, 1536-byte XRAM, MultiCAN with 2 nodes, capture/compare unit (CCU6), 16-bit timers/counters, 10-bit ADC, port- and core voltage watchdog circuit with RESET generation, watchdog timer, on-chip debug support (JTAG), 5-V power supply, with LIN BSL support and MDU module, -40°C to 125°C, tape & reel
■ SAF-XC888CLM-8FFI 5V AC-Step	SP000253397	PG-TQFP-64-8	as SAK-XC888CLM-8FFA, industry quality level, -40°C to 85°C, tape & reel

SMD = Surface Mounted Device

Type	Ordering Code	Package	Description
<b>Microcontrollers, 8-bit</b>			
<b>XC800 Family XC888CM Series</b>			
SAF-XC888CM-6FFA 5V AC-Step	SP000257468	PG-TQFP-64-8	High performance XC800 core, based on industry standard 8051 architecture, 24-Kbyte flash memory, automotive quality level, 256-byte RAM, 1536-byte XRAM, MultiCAN with 2 nodes, capture/compare unit (CCU6), 16-bit timers/counters, 10-bit ADC, port- and core voltage watchdog circuit with RESET generation, watchdog timer, on-chip debug support (JTAG), 5-V power supply, with MDU module, -40°C to 85°C, tape & reel
SAK-XC888CM-6FFA 5V AC-Step	SP000245822	PG-TQFP-64-8	as SAF-XC888CM-6FFA, -40°C to 125°C, tape & reel
SAF-XC888CM-6RFA	SP000257476	PG-TQFP-64-8	High performance XC800 core, based on industry standard 8051 architecture, 24-Kbyte ROM, automotive quality level, 256-byte RAM, 1536-byte XRAM, MultiCAN with 2 nodes, capture/compare unit (CCU6), 16-bit timers/counters, 10-bit ADC, port- and core voltage watchdog circuit with RESET generation, watchdog timer, on-chip debug support (JTAG), with MDU module, -40°C to 85°C, tape & reel
SAK-XC888CM-6RFA 5V AA-Step	SP000257472	PG-TQFP-64-8	as SAF-XC888CM-6RFA, 5-V power supply, -40°C to 125°C, tape & reel
SAF-XC888CM-8FFA 5V AC-Step	SP000210981	PG-TQFP-64-8	High performance XC800 core, based on industry standard 8051 architecture, 32-Kbyte flash memory, automotive quality level, 256-byte RAM, 1536-byte XRAM, MultiCAN with 2 nodes, capture/compare unit (CCU6), 16-bit timers/counters, 10-bit ADC, port- and core voltage watchdog circuit with RESET generation, watchdog timer, on-chip debug support (JTAG), 5-V power supply, with MDU module, -40°C to 85°C, tape & reel
SAK-XC888CM-8FFA 5V AC-Step	SP000607006	PG-TQFP-64-8	as SAF-XC888CM-8FFA, -40°C to 125°C, tape & reel
SAF-XC888CM-8FFI 3V3 AC-Step	SP000607084	PG-TQFP-64-8	as SAF-XC886CM-8FFA, industry quality level, 3.3-V power supply, tape & reel
SAF-XC888CM-8FFI 5V AC-Step	SP000655550	PG-TQFP-64-8	as SAF-XC886CM-8FFA, industry quality level, 5-V power supply, tape & reel
SAK-XC888CM-8FFI 5V AC-Step	SP000253407	PG-TQFP-64-8	as SAF-XC888CM-8FFI, -40°C to 125°C, tape & reel
SAF-XC888CM-8RFA AA-Step	SP000245812	PG-TQFP-64-8	High performance XC800 core, based on industry standard 8051 architecture, 32-Kbyte ROM, automotive quality level, 256-byte RAM, 1536-byte XRAM, MultiCAN with 2 nodes, capture/compare unit (CCU6), 16-bit timers/counters, 10-bit ADC, port- and core voltage watchdog circuit with RESET generation, watchdog timer, on-chip debug support (JTAG), with MDU module, -40°C to 85°C, tape & reel

SMD = Surface Mounted Device

# Microcontrollers

Type	Ordering Code	Package	Description
<b>Microcontrollers, 8-bit</b>			
<b>XC800 Family XC888LM Series</b>			
SAF-XC888LM-6FFA 5V AC-Step	SP000210988	PG-TQFP-64-8	High performance XC800 core, based on industry standard 8051 architecture, 24-Kbyte flash memory, automotive quality level, 256-byte RAM, 1536-byte XRAM, capture/compare unit (CCU6), 16-bit timers/counters, 10-bit ADC, port- and core voltage watchdog circuit with RESET generation, watchdog timer, on-chip debug support (JTAG), 5-V power supply, with LIN BSL support and MDU module, -40°C to 85°C, tape & reel
SAK-XC888LM-6FFA 5V AC-Step	SP000210994	PG-TQFP-64-8	as SAF-XC888LM-6FFA, -40°C to 125°C, tape & reel
SAF-XC888LM-6FFI 5V AC-Step	SP000253399	PG-TQFP-64-8	as SAF-XC888LM-6FFA, industry quality level, tape & reel
SAF-XC888LM-8FFA 5V AC-Step	SP000210985	PG-TQFP-64-8	High performance XC800 core, based on industry standard 8051 architecture, 32-Kbyte flash memory, automotive quality level, 256-byte RAM, 1536-byte XRAM, capture/compare unit (CCU6), 16-bit timers/counters, 10-bit ADC, port- and core voltage watchdog circuit with RESET generation, watchdog timer, on-chip debug support (JTAG), 5-V power supply, with LIN BSL support and MDU module, -40°C to 85°C, tape & reel
SAF-XC888LM-8FFI 5V AC-Step	SP000607064	PG-TQFP-64-8	as SAF-XC888LM-8FFA, industry quality level, tape & reel

SMD = Surface Mounted Device

Type	Ordering Code	Package	Description
<b>Microcontrollers, 8-bit</b>			
<b>C500 Family</b>			
<b>C505 Series</b>			
SAF-C505CA-LM CA-Step	SP000106669	PG-MQFP-44-2	ROMless, 256-byte on-chip RAM, 1-Kbyte XRAM, oscillator watchdog, watchdog timer, full CAN-controller (V 2.0 B active), 10-bit ADC, three 16-bit timers/counters, 20-MHz clock frequency, tray
SAF-C505CA-LM CA-Step	SP000106390	PG-MQFP-44-2	as SAF-C505CA-LM, tape & reel
SAB-C505CA-4EM CA-Step	SP000106391	PG-MQFP-44-2	as SAF-C505CA-LM, 32-Kbyte OTP memory, 0°C to 70°C, tray
SAB-C505CA-4EM CA-Step	SP000106392	PG-MQFP-44-2	as SAB-C505CA-4EM, tape & reel
SAF-C505CA-4EM CA-Step	SP000106394	PG-MQFP-44-2	as SAB-C505CA-4 EM, -40°C to 85°C, tray
SAF-C505CA-4EM CA-Step	SP000106395	PG-MQFP-44-2	as SAF-C505CA-4EM, tape & reel
SAK-C505CA-4EM CA-Step	SP000106396	PG-MQFP-44-2	as SAF-C505CA-4EM, -40°C to 125°C, tray
SAK-C505CA-4EM CA-Step	SP000106397	PG-MQFP-44-2	as SAK-C505CA-4EM, tape & reel
<b>C515 Series</b>			
SAF-C515C-8EM CA-Step	SP000106398	PG-MQFP-80-1	64-Kbyte OTP memory, 256 x 8-bit RAM, additional 2K x 8-bit on-chip RAM, three 16-bit timer/counters, power saving modes, 10-bit A/D converter, programmable watchdog timer, oscillator watchdog, 10-MHz CPU clock frequency, for external memory, full CAN-controller (V 2.0 B active), -40°C to 85°C, tray
SAF-C515C-8EM CA-Step	SP000106399	PG-MQFP-80-1	as SAF-C515C-8EM, tape & reel

SMD = Surface Mounted Device

# Microcontrollers

Type	Ordering Code	Package	Description
<b>Microcontrollers, 16-bit</b>			
<b>XC166 Family</b>			
<b>XC161CJ/CS Series</b>			
■ SAF-XC161CJ-16F20F BB-Step	SP000231472	PG-TQFP-144-19	128-Kbyte on-chip program memory (flash memory), 8-Kbyte RAM, programmable watchdog timer, oscillator watchdog, two 16-channel general purpose capture/compare units, TwinCAN module, two Full-CAN nodes, serial data link module (J1850), 12-channel 10-bit A/D converter, 20-MHz clock frequency, -40°C to 85°C, tape & reel
■ SAK-XC161CJ-16F20F BB-Step	SP000224538	PG-TQFP-144-19	as SAF-XC161CJ-16F20F, -40°C to 125°C, tape & reel
SAF-XC161CJ-16F40F BB-Step	SP000280516	PG-TQFP-144-19	as SAF-XC161CJ-16F20F, 40-MHz clock frequency, tray
SAF-XC161CJ-16F40F BB-Step	SP000224537	PG-TQFP-144-19	as SAF-XC161CJ-16F20F, 40-MHz clock frequency, tape & reel
SAK-XC161CJ-16F40F BB-Step	SP000224540	PG-TQFP-144-19	as SAF-XC161CJ-16F40F, -40°C to 125°C, tape & reel
■ SAF-XC161CS-32F20F BB-A-Step	SP000224541	PG-TQFP-144-19	256-Kbyte on-chip program memory (flash memory), 12-Kbyte RAM, programmable watchdog timer, oscillator watchdog, two 16-channel general purpose capture/compare units, TwinCAN module, two Full-CAN nodes, serial data link module (J1850), 20-MHz clock frequency, -40°C to 85°C, tape & reel
■ SAK-XC161CS-32F20F BB-A-Step	SP000224543	PG-TQFP-144-19	as SAF-XC161CS-32F20F, -40°C to 125°C, tape & reel
SAF-XC161CS-32F40F BB-A-Step	SP000224542	PG-TQFP-144-19	as SAF-XC161CS-32F20F, 40-MHz clock frequency, tape & reel
SAK-XC161CS-32F40F BB-A-Step	SP000224544	PG-TQFP-144-19	as SAF-XC161CS-32F40F, -40°C to 125°C, tape & reel

SMD = Surface Mounted Device

Type	Ordering Code	Package	Description
<b>Microcontrollers, 16-bit</b>			
<b>XC166 Family XC164CM Series</b>			
SAK-XC164CM-4F20F AA-Step	SP000084409	PG-TQFP-64-8	32-Kbyte on-chip program memory (flash memory), 2-Kbyte embedded static RAM, programmable watchdog timer, oscillator watchdog, one 16-channel purpose capture/compare units, TwinCAN module, one Full-CAN nodes, 14-channel 10-Bit A/D converter, 20-MHz clock frequency, -40°C to 125°C, tape & reel
■ SAF-XC164CM-4F40F AA-Step	SP000203863	PG-TQFP-64-8	as SAK-XC164CM-4F20F, 40-MHz clock frequency, -40°C to 85°C, tray
■ SAF-XC164CM-4F40F AA-Step	SP000084410	PG-TQFP-64-8	as SAF-XC164CM-4F40F, tape & reel
■ SAF-XC164CM-8F20F AA-Step	SP000065633	PG-TQFP-64-8	as SAF-XC164CM4F40F, 64-Kbyte on-chip program memory (flash memory), 20-MHz clock frequency, tape & reel
■ SAK-XC164CM-8F20F AA-Step	SP000203868	PG-TQFP-64-8	as SAF-XC164CM-8F20F, -40°C to 125°C, tray
SAK-XC164CM-8F20F AA-Step	SP000065643	PG-TQFP-64-8	as SAK-XC164CM-8F20F, tape & reel
SAF-XC164CM-8F40F AA-Step	SP000203865	PG-TQFP-64-8	as SAF-XC164CM-8F20F, 40-MHz clock frequency, tray
SAF-XC164CM-8F40F AA-Step	SP000065635	PG-TQFP-64-8	as SAF-XC164CM-8F40F, tape & reel
SAK-XC164CM-8F40F AA-Step	SP000203869	PG-TQFP-64-8	as SAF-XC164CM-8F40F, -40°C to 125°C, tray
SAK-XC164CM-8F40F AA-Step	SP000065644	PG-TQFP-64-8	as SAK-XC164CM-8F40F, tape & reel
SAK-XC164CM-16F20F BA-Step	SP000245661	PG-LQFP-64-4	as SAK-XC164CM-8F20F, 128-Kbyte on-chip program memory (flash memory), tape & reel
SAF-XC164CM-16F40F BA-Step	SP000258386	PG-LQFP-64-4	as SAK-XC164CM-16F20F, 40-MHz clock frequency, -40°C to 85°C, tray
SAK-XC164CM-16F40F BA-Step	SP000258408	PG-LQFP-64-4	as SAF-XC164CM-16F40F, -40°C to 125°C, tray
SAK-XC164CM-16F40F BA-Step	SP000258407	PG-LQFP-64-4	as SAK-XC164CM-16F40F, tape & reel

SMD = Surface Mounted Device

# Microcontrollers

Type	Ordering Code	Package	Description
<b>Microcontrollers, 16-bit</b>			
<b>XC166 Family</b>			
<b>XC164CS Series</b>			
SAF-XC164CS-8F20F BB-Step	SP000224555	PG-TQFP-100-16	64-Kbyte on-chip program memory (flash memory), 6-Kbyte embedded static RAM, programmable watchdog timer, oscillator watchdog, two 16-channel purpose capture/compare units, TwinCAN module, two Full-CAN nodes, 14-channel 10-bit A/D converter, 20-MHz clock frequency, -40°C to 85°C, tray
■ SAF-XC164CS-8F20F BB-Step	SP000224554	PG-TQFP-100-16	as SAF-XC164CS-8F20F, tape & reel
■ SAK-XC164CS-8F20F BB-Step	SP000224563	PG-TQFP-100-16	as SAF-XC164CS-8F20F, -40°C to 125°C, tray
■ SAK-XC164CS-8F20F BB-Step	SP000224562	PG-TQFP-100-16	as SAK-XC164CS-8F20F, tape & reel
■ SAF-XC164CS-8F40F BB-Step	SP000224557	PG-TQFP-100-16	as SAF-XC164CS-8F20F, 40-MHz clock frequency, tray
■ SAF-XC164CS-8F40F BB-Step	SP000224556	PG-TQFP-100-16	as SAF-XC164CS-8F40F, tape & reel
■ SAK-XC164CS-8F40F BB-Step	SP000224565	PG-TQFP-100-16	as SAF-XC164CS-8F40F, -40°C to 125°C, tray
■ SAK-XC164CS-8F40F BB-Step	SP000224564	PG-TQFP-100-16	as SAK-XC164CS-8F40F, tape & reel
■ SAF-XC164CS-16F20F BB-Step	SP000224551	PG-TQFP-100-16	as SAF-XC164CS-8F20F, 128-Kbyte on-chip program memory (flash memory), tray
■ SAF-XC164CS-16F20F BB-Step	SP000224550	PG-TQFP-100-16	as SAF-XC164CS-16F20F, tape & reel
■ SAK-XC164CS-16F20F BB-Step	SP000224559	PG-TQFP-100-16	as SAF-XC164CS-16F20F, -40°C to 125°C, tray
SAK-XC164CS-16F20F BB-Step	SP000224558	PG-TQFP-100-16	as SAK-XC164CS-16F20F, tape & reel
SAF-XC164CS-16F40F BB-Step	SP000224553	PG-TQFP-100-16	as SAF-XC164CS-16F20F, 40-MHz clock frequency, tray
SAF-XC164CS-16F40F BB-Step	SP000224552	PG-TQFP-100-16	as SAF-XC164CS-16F40F, tape & reel
SAK-XC164CS-16F40F BB-Step	SP000224561	PG-TQFP-100-16	as SAF-XC164CS-16F40F, -40°C to 125°C, tray
SAK-XC164CS-16F40F BB-Step	SP000224560	PG-TQFP-100-16	as SAK-XC164CS-16F40F, tape & reel
■ SAF-XC164CS-32F20F BB-A-Step	SP000224591	PG-TQFP-100-16	as SAF-XC164CS-16F20F, 256-Kbyte on-chip program memory (flash memory), 12-Kbyte RAM, tray
■ SAF-XC164CS-32F20F BB-A-Step	SP000224590	PG-TQFP-100-16	as SAF-XC164CS-32F20F, tape & reel
■ SAK-XC164CS-32F20F BB-A-Step	SP000224595	PG-TQFP-100-16	as SAF-XC164CS-32F20F, -40°C to 125°C, tray
SAK-XC164CS-32F20F BB-A-Step	SP000224594	PG-TQFP-100-16	as SAK-XC164CS-32F20F, tape & reel
SAF-XC164CS-32F40F BB-A-Step	SP000224593	PG-TQFP-100-16	as SAF-XC164CS-32F20F, 40-MHz clock frequency, tray
SAF-XC164CS-32F40F BB-A-Step	SP000224592	PG-TQFP-100-16	as SAF-XC164CS-32F40F, tape & reel
SAK-XC164CS-32F40F BB-A-Step	SP000224597	PG-TQFP-100-16	as SAF-XC164CS-32F40F, -40°C to 125°C, tray
SAK-XC164CS-32F40F BB-A-Step	SP000224596	PG-TQFP-100-16	as SAK-XC164CS-32F40F, tape & reel

SMD = Surface Mounted Device



Type	Ordering Code	Package	Description
<b>Microcontrollers, 16-bit</b>			
<b>XC166 Family XC164D Series</b>			
■ SAF-XC164D-8F20F BB-Step	SP000224581	PG-TQFP-100-16	64-Kbyte on-chip program memory (flash memory), 6-Kbyte embedded static RAM, programmable watchdog timer, oscillator watchdog, two 16-channel purpose capture/compare units, TwinCAN module, two Full-CAN nodes, CAPCOM6E module, power saving modes, 20-MHz clock frequency, -40°C to 85°C, tray
■ SAF-XC164D-8F20F BB-Step	SP000224580	PG-TQFP-100-16	as SAF-XC164D-8F20F, tape & reel
■ SAF-XC164D-8F40F BB-Step	SP000224587	PG-TQFP-100-16	as SAF-XC164D-8F20F, 40-MHz clock frequency, tray
■ SAF-XC164D-8F40F BB-Step	SP000224586	PG-TQFP-100-16	as SAF-XC164D-8F40F, tape & reel
■ SAF-XC164D-16F20F BB-Step	SP000224569	PG-TQFP-100-16	as SAF-XC164D-8F20F, 128-Kbyte on-chip program memory (flash memory), tray
■ SAF-XC164D-16F20F BB-Step	SP000224568	PG-TQFP-100-16	as SAF-XC164D-16F20F, tape & reel
■ SAF-XC164D-16F40F BB-Step	SP000224573	PG-TQFP-100-16	as SAF-XC164D-16F20F, 40-MHz clock frequency, tray
■ SAF-XC164D-16F40F BB-Step	SP000224572	PG-TQFP-100-16	as SAF-XC164D-16F40F, tape & reel
<b>XC164GM Series</b>			
■ SAF-XC164GM-16F40F BA-Step	SP000258387	PG-LQFP-64-4	128-Kbyte on-chip program memory (flash memory), 2-Kbyte embedded static RAM, programmable watchdog timer, oscillator watchdog, TwinCAN module, one Full-CAN nodes, 14-channel 10-Bit A/D converter, 40-MHz clock frequency, -40°C to 85°C, tape & reel

SMD = Surface Mounted Device

# Microcontrollers

Type	Ordering Code	Package	Description
<b>Microcontrollers, 16-bit</b>			
<b>XC166 Family</b>			
<b>XC164KM Series</b>			
■ SAF-XC164KM-8F40F AA-Step	SP000105877	PG-TQFP-64-4	64-Kbyte on-chip program memory (flash memory), 2-Kbyte embedded static RAM, programmable watchdog timer, oscillator watchdog, one 16-channel purpose capture/compare units, TwinCAN module, one Full-CAN nodes, 40-MHz clock frequency, -40°C to 85°C, tape & reel
■ SAF-XC164KM-16F40F BA-Step	SP000258390	PG-LQFP-64-4	as SAF-XC164KM-16F20F, 128-Kbyte on-chip memory, tray
<b>XC164LM Series</b>			
■ SAF-XC164LM-8F40F AA-Step	SP000105878	PG-TQFP-64-4	64-Kbyte on-chip program memory (flash memory), 2-Kbyte embedded static RAM, programmable watchdog timer, oscillator watchdog, 40-MHz clock frequency, -40°C to 85°C, tape & reel

SMD = Surface Mounted Device

Type	Ordering Code	Package	Description
<b>Microcontrollers, 16-bit</b>			
<b>XC166 Family XC164N Series</b>			
■ SAF-XC164N-8F20F BB-Step	SP000224583	PG-TQFP-100-16	64-Kbyte on-chip program memory (flash memory), 6-Kbyte embedded static RAM, programmable watchdog timer, oscillator watchdog, two 16-channel purpose capture/compare units, two Full-CAN nodes, CAPCOM6E module, power saving modes, 20-MHz clock frequency, -40°C to 85°C, tray
■ SAF-XC164N-8F20F BB-Step	SP000224582	PG-TQFP-100-16	as SAF-XC164N-8F20F, tape & reel
■ SAF-XC164N-8F40F BB-Step	SP000224589	PG-TQFP-100-16	as SAF-XC164N-8F40F, 40-MHz clock frequency, tray
■ SAF-XC164N-8F40F BB-Step	SP000224588	PG-TQFP-100-16	as SAF-XC164N-8F40F, tape & reel
■ SAF-XC164N-16F20F BB-Step	SP000224571	PG-TQFP-100-16	as SAF-XC164N-8F20F, 128-Kbyte on-chip program memory (flash memory), tray
■ SAF-XC164N-16F20F BB-Step	SP000224570	PG-TQFP-100-16	as SAF-XC164N-16F20F, tape & reel
SAF-XC164N-16F40F BB-Step	SP000224575	PG-TQFP-100-16	as SAF-XC164N-16F40F, 40-MHz clock frequency, tray
■ SAF-XC164N-16F40F BB-Step	SP000224574	PG-TQFP-100-16	as SAF-XC164N-16F40F, tape & reel
■ SAF-XC164N-32F20F BB-Step	SP000277075	PG-TQFP-100-16	as SAF-XC164N-16F20F, 256-Kbyte on-chip program memory (flash memory), tape & reel

<b>XC164S Series</b>			
■ SAF-XC164S-8F20F BB-Step	SP000224579	PG-TQFP-100-16	64-Kbyte on-chip program memory (flash memory), 6-Kbyte embedded static RAM, programmable watchdog timer, oscillator watchdog, two 16-channel purpose capture/compare units, 14-channel 10-bit A/D converter, two Full-CAN nodes, CAPCOM6E module, power saving modes, 20-MHz clock frequency, -40°C to 85°C, tray
■ SAF-XC164S-8F20F BB-Step	SP000224578	PG-TQFP-100-16	as SAF-XC164S-8F20F, tape & reel
■ SAF-XC164S-8F40F BB-Step	SP000224585	PG-TQFP-100-16	as SAF-XC164S-8F20F, 40-MHz clock frequency, tray
■ SAF-XC164S-8F40F BB-Step	SP000224584	PG-TQFP-100-16	as SAF-XC164S-8F40F, tape & reel
■ SAF-XC164S-16F20F BB-Step	SP000224567	PG-TQFP-100-16	as SAF-XC164S-8F20F, 128-Kbyte on-chip program memory (flash memory), tray
■ SAF-XC164S-16F20F BB-Step	SP000224566	PG-TQFP-100-16	as SAF-XC164S-16F20F, tape & reel
■ SAF-XC164S-16F40F BB-Step	SP000224577	PG-TQFP-100-16	as SAF-XC164S-16F20F, 40-MHz clock frequency, tray
■ SAF-XC164S-16F40F BB-Step	SP000224576	PG-TQFP-100-16	as SAF-XC164S-16F40F, tape & reel
■ SAF-XC164S-32F40F BB-Step	SP000277081	PG-TQFP-100-16	as SAF-XC164S-16F40F, 256-Kbyte on-chip program memory (flash memory), tape & reel

SMD = Surface Mounted Device

# Microcontrollers

Type	Ordering Code	Package	Description
<b>Microcontrollers, 16-bit</b>			
<b>XC166 Family</b>			
<b>XC164SM Series</b>			
■ SAF-XC164SM-4F20F AA-Step	SP000105865	PG-TQFP-64-4	32-Kbyte on-chip program memory (flash memory), 2-Kbyte embedded static RAM, programmable watchdog timer, oscillator watchdog, one 16-channel purpose capture/compare units, 14-channel 10-Bit A/D converter, 20-MHz clock frequency, -40°C to 85°C, tape & reel
■ SAF-XC164SM-4F40F AA-Step	SP000203879	PG-TQFP-64-4	as SAF-XC164SM-4F20F, 40-MHz clock frequency, tray
■ SAF-XC164SM-8F20F AA-Step	SP000203884	PG-TQFP-64-4	as SAF-XC164SM-4F20F, 64-Kbyte on-chip program memory (flash memory), tray
■ SAF-XC164SM-8F40F AA-Step	SP000203889	PG-TQFP-64-4	as SAF-XC164SM-8F20F, 40-MHz clock frequency, tray
<b>XC164TM Series</b>			
■ SAF-XC164TM-8F40F AA-Step	SP000203890	PG-TQFP-64-4	64-Kbyte on-chip program memory (flash memory), 2-Kbyte embedded static RAM, programmable watchdog timer, oscillator watchdog, 14-channel 10-Bit A/D converter, 40-MHz clock frequency, -40°C to 85°C, tray
■ SAF-XC164TM-8F40F AA-Step	SP000105880	PG-TQFP-64-4	as SAF-XC164TM-8F40F, tape & reel
■ SAF-XC164TM-16F20F BA-Step	SP000258383	PG-LQFP-64-4	as SAF-XC164TM-8F40F, 128-Kbyte on-chip program memory (flash memory), 20-MHz clock frequency, tray

SMD = Surface Mounted Device

Type	Ordering Code	Package	Description
<b>Microcontrollers, 16-bit</b>			
<b>XC166 Family XC167CI Series</b>			
■ SAF-XC167CI-16F20F BB-Step	SP000224688	PG-TQFP-144-19	128-Kbyte on-chip program memory (flash memory), 8-Kbyte on-chip RAM, programmable watchdog timer, oscillator watchdog, two 16-channel purpose capture/compare units, 16-channel 10-bit A/D converter, TwinCAN module, two Full-CANnodes, 20-MHz clock frequency, -40°C to 85°C, tray
■ SAF-XC167CI-16F20F BB-Step	SP000224687	PG-TQFP-144-19	as SAF-XC167CI-8F20F, tape & reel
■ SAK-XC167CI-16F20F BB-Step	SP000224692	PG-TQFP-144-19	as SAF-XC167CI-16F-20F, -40°C to 125°C, tray
■ SAK-XC167CI-16F20F BB-Step	SP000224691	PG-TQFP-144-19	as SAK-XC167CI-16F-20F, tape & reel
SAF-XC167CI-16F40F BB-Step	SP000224690	PG-TQFP-144-19	as SAF-XC167CI-16F20F, 40-MHz clock frequency, tray
SAF-XC167CI-16F40F BB-Step	SP000224689	PG-TQFP-144-19	as SAF-XC167CI-16F40F, tape & reel
SAK-XC167CI-16F40F BB-Step	SP000224695	PG-TQFP-144-19	as SAF-XC167CI-16F40F, -40°C to 125°C, tray
SAK-XC167CI-16F40F BB-Step	SP000224694	PG-TQFP-144-19	as SAK-XC167CI-16F40F, tape & reel
■ SAF-XC167CI-32F20F BB-A-Step	SP000224701	PG-TQFP-144-19	as SAF-XC167CI-16F20F, 256-Kbytes on-chip program memory (flash memory), 12-Kbyte RAM, tray
■ SAF-XC167CI-32F20F BB-A-Step	SP000224700	PG-TQFP-144-19	as SAF-XC167CI-32F20F, tape & reel
■ SAK-XC167CI-32F20F BB-A-Step	SP000224705	PG-TQFP-144-19	as SAF-XC167CI-32F20F, -40°C to 125°C, tray
■ SAK-XC167CI-32F20F BB-A-Step	SP000224704	PG-TQFP-144-19	as SAK-XC167CI-32F20F, tape & reel
SAF-XC167CI-32F40F BB-A-Step	SP000224703	PG-TQFP-144-19	as SAF-XC167CI-32F20F, 40-MHz clock frequency, tray
SAF-XC167CI-32F40F BB-A-Step	SP000224702	PG-TQFP-144-19	as SAF-XC167CI-32F40F, tape & reel
SAK-XC167CI-32F40F BB-A-Step	SP000224707	PG-TQFP-144-19	as SAF-XC167CI-32F40F, -40°C to 125°C, tray
SAK-XC167CI-32F40F BB-A-Step	SP000224706	PG-TQFP-144-19	as SAK-XC167CI-32F40F, tape & reel

SMD = Surface Mounted Device

# Microcontrollers

Type	Ordering Code	Package	Description
<b>Microcontrollers, 16-bit</b>			
<b>C166 Family</b>			
<b>C161CS, JC, JI Series</b>			
SAB-C161CS-LF CA-Step	SP000106860	PG-TQFP-128-2	ROMless, 10-Kbyte on-chip SRAM, two on-chip CAN-interfaces (CAN1,CAN2), two 16-channel capture/compare units, 12-channel 10-bit ADC, watchdog timer, oscillator watchdog, additional 32-kHz oscillator, 25-MHz clock frequency, tray
SAB-C161CS-LF CA-Step	SP000106861	PG-TQFP-128-2	as SAB-C161CS-LF, tape & reel
SAF-C161CS-LF	SP000106865	PG-TQFP-128-2	as SAB-C161CS-LF, -40°C to 85°C, tray
SAK-C161CS-LF CA-Step	SP000106868	PG-TQFP-128-2	as SAF-C161CS-LF, -40°C to 125°C, tray
SAK-C161CS-LF CA-Step	SP000106869	PG-TQFP-128-2	as SAF-C161CS-LF, -40°C to 125°C, tape & reel
SAB-C161JC-LF CA-Step	SP000106862	PG-TQFP-128-2	as SAB-C161CS-LF, one on-chip CAN-interface (CAN1), serial data link module J1850 (SDLM), tray
SAB-C161JC-LF CA-Step	SP000106863	PG-TQFP-128-2	as SAB-C161JC-LF, tape & reel
SAF-C161JC-LF CA-Step	SP000107068	PG-TQFP-128-2	as SAB-C161JC-LF, -40°C to 85°C, tray
SAK-C161JC-LF CA-Step	SP000106870	PG-TQFP-128-2	as SAF-C161JC-LF, -40°C to 125°C, tray
SAK-C161JC-LF CA-Step	SP000106871	PG-TQFP-128-2	as SAK-C161JC-LF, tape & reel
SAB-C161JI-LF CA-Step	SP000106864	PG-TQFP-128-2	as SAB-C161JC-LF, without CAN-interface (CAN1), tape & reel
SAF-C161JI-LF CA-Step	SP000106867	PG-TQFP-128-2	as SAB-C161JI-LF, -40°C to 85°C, tape & reel

## C161K/O Series

SAB-C161K-LM HA-Step	SP000011584	PG-MQFP-80-1	ROMless, 1-Kbyte on-chip RAM, one general purpose timer unit with 3 timers, two serial interfaces, 4 fast external interrupt inputs, 4-Mbyte address range, two chip select signals, DMUX bus, additional timer unit with capture input, operating range 5 V, 20-MHz clock frequency, tray
SAB-C161K-LM HA-Step	SP000011585	PG-MQFP-80-1	as SAB-C161K-LM, tape & reel
SAF-C161K-LM HA-Step	SP000011620	PG-MQFP-80-1	as SAB-C161K-LM, -40°C to 85°C, tray
SAF-C161K-LM3V HA-Step	SP000011621	PG-MQFP-80-1	as SAB-C161K-LM, operating range 3 V, -40°C to 85°C, tape & reel
SAB-C161O-LM HA-Step	SP000011586	PG-MQFP-80-1	as SAB-C161K-LM, 2-Kbyte on-chip internal RAM, two general purpose timer units with 5 timers, four chip-select signals, tray
SAB-C161O-LM HA-Step	SP000011587	PG-MQFP-80-1	as SAB-C161O-LM, tape & reel
SAF-C161O-LM HA-Step	SP000011622	PG-MQFP-80-1	as SAB-C161O-LM, -40°C to 85°C, tray
SAF-C161O-LM HA-Step	SP000011623	PG-MQFP-80-1	as SAB-C161O-LM, -40°C to 85°C, tape & reel
SAB-C161O-L25M HA-Step	SP000014268	PG-MQFP-80-1	as SAB-C161O-LM, 25-MHz clock frequency, tape & reel
SAB-C161O-LM3V HA-Step	SP000011588	PG-MQFP-80-1	as SAB-C161O-LM, operating range 3 V, tape & reel
SAF-C161O-LM3V HA-Step	SP000011624	PG-MQFP-80-1	as SAB-C161O-LM3V, -40°C to 85°C, tape & reel

SMD = Surface Mounted Device

Type	Ordering Code	Package	Description
<b>Microcontrollers, 16-bit</b>			
<b>C166 Family</b>			
<b>C161PI Series</b>			
SAB-C161PI-LF CA-Step	SP000014344	PG-TQFP-100-1	ROMless, 3-Kbyte RAM, 8-bit ADC, real time clock, general purpose timer units, I <sup>2</sup> C Bus, USART, watchdog timer, idle and power down mode, operating range 5 V, 10-bit ADC, 20-MHz clock frequency, tape & reel
SAF-C161PI-LF CA-Step	SP000014359	PG-TQFP-100-1	as SAB-C161PI-LF, -40°C to 85°C, tape & reel
SAB-C161PI-LF3V CA-Step	SP000014360	PG-TQFP-100-1	as SAB-C161PI-LF, operating range 3 V, tape & reel
SAF-C161PI-LF3V CA-Step	SP000014361	PG-TQFP-100-1	as SAB-C161PI-LF 3 V, -40°C to 85°C, tape & reel
SAB-C161PI-L25F CA-Step	SP000014362	PG-TQFP-100-1	as SAB-C161PI-LF, 25-MHz clock frequency, tape & reel
SAF-C161PI-L25F CA-Step	SP000014363	PG-TQFP-100-1	as SAB-C161PI-L25F, -40°C to 85°C, tape & reel
SAB-C161PI-LM CA-Step	SP000014345	PG-MQFP-100-2	as SAB-C161PI-LF, MQFP package, tape & reel
SAF-C161PI-LM CA-Step	SP000014364	PG-MQFP-100-2	as SAB-C161PI-LM, -40°C to 85°C, tape & reel
SAB-C161PI-LM3V CA-Step	SP000014365	PG-MQFP-100-2	as SAB-C161PI-LM, operating range 3 V, tape & reel
SAF-C161PI-LM3V CA-Step	SP000014366	PG-MQFP-100-2	as SAB-C161PI-LM 3V, -40°C to 85°C, tape & reel
SAB-C161PI-L25M CA-Step	SP000014367	PG-MQFP-100-2	as SAB-C161PI-LM, 25-MHz clock frequency, tape & reel
SAF-C161PI-L25M CA-Step	SP000014368	PG-MQFP-100-2	as SAB-C161PI-L25M, -40°C to 85°C, tape & reel
<b>C161S Series</b>			
SAB-C161S-L25M AA-Step	SP000014739	PG-MQFP-80-7	as SAB-C161PI-LM, low cost version, 25-MHz clock frequency, tape & reel
SAF-C161S-L25M AA-Step	SP000014947	PG-MQFP-80-7	as SAB-C161S-L25M, -40°C to 85°C, tape & reel
SAB-C161S-LM3V AA-Step	SP000014946	PG-MQFP-80-7	as SAB-C161PI-LM, low cost version, operating range 3 V, tape & reel
SAF-C161S-LM3V AA-Step	SP000014948	PG-MQFP-80-7	as SAB-C161PI-LM, -40°C to 85°C, tape & reel

SMD = Surface Mounted Device

# Microcontrollers

Type	Ordering Code	Package	Description
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## Microcontrollers, 16-bit

### C166 Family C161CI, CL, SI Series

SAF-C164CI-LM CA+-Step	SP000103495	PG-MQFP-80-7	ROMless, 4-Kbyte on-chip static RAM, 10-bit- ADC, real time clock, programmable watchdog timer, oscillator watchdog, idle and power down mode, full CAN-controller (V 2.0 B active), 20-MHz clock frequency, -40°C to 85°C, tape & reel
SAK-C164CI-LM CA+-Step	SP000103497	PG-MQFP-80-7	as SAF-C164CI-LM, -40°C to 125°C, tape & reel
SAK-C164CI-L25M CA+-Step	SP000103496	PG-MQFP-80-7	as SAF-C164CI-LM, 25-MHz clock frequency, tape & reel
SAB-C164CI-LM3V CA+-Step	SP000103494	PG-MQFP-80-7	as SAF-C164CI-LM, operating range 3 V, 0°C to 70°C, tape & reel
SAF-C164CI-8EM CB-Step	SP000103498	PG-MQFP-80-7	as SAF-C164CI-LM, 64-Kbyte OTP-memory, 4-Kbyte on-chip static RAM, 10-bit ADC, real time clock, programmable watchdog timer, oscillator watchdog, idle and power down mode, full CAN-controller (V 2.0 B active), drive control unit, 20-MHz clock frequency, -40°C to 85°C, tray
SAF-C164CI-8EM CB-Step	SP000103499	PG-MQFP-80-7	as SAF-C164CI-8EM, tape & reel
SAF-C164CI-8EM DB-Step	SP000104055	PG-MQFP-80-7	as SAF-C164CI-8EM, DB-Step, tray
SAF-C164CI-8EM DB-Step	SP000104056	PG-MQFP-80-7	as SAF-C164CI-8EM, DB-Step, tape & reel
SAK-C164CI-8EM CB-Step	SP000103500	PG-MQFP-80-7	as SAF-C164CI-8M, -40°C to 125°C, tray
SAK-C164CI-8EM CB-Step	SP000103501	PG-MQFP-80-7	as SAK-C164CI-8EM, tape & reel
SAK-C164CI-8EM DB-Step	SP000104059	PG-MQFP-80-7	as SAK-C164CI-8EM, DB-Step, tray
SAK-C164CI-8EM DB-Step	SP000104060	PG-MQFP-80-7	as SAK-C164CI-8EM, tape & reel
SAF-C164CI-8E25M DB-Step	SP000104053	PG-MQFP-80-7	as SAF-C164CI-8EM, 25-MHz clock frequency, tray
SAF-C164CI-8E25M DB-Step	SP000104054	PG-MQFP-80-7	as SAF-C164CI-8E25M, tape & reel
SAF-C164CI-8E28M DB-Step	SP000106781	PG-MQFP-80-7	as SAF-C164C8EM, 28-MHz clock frequency, tape & reel
SAK-C164CI-8E25M DB-Step	SP000104057	PG-MQFP-80-7	as SAF-C164CI-825M, tray
SAK-C164CI-8E25M DB-Step	SP000104058	PG-MQFP-80-7	as SAK-C164CI-8E25M, tape & reel

### C164CM Series

SAF-C164CM-4EF AB-Step	SP000104062	PG-TQFP-64-4	32-Kbyte OTP memory, 2-Kbyte on-chip static RAM, 10-bit ADC, real time clock, programmable watchdog timer, oscillator watchdog, on-chip CAN-interface (V 2.0 B active), drive control unit, 20-MHz clock frequency, -40°C to 85°C, tape & reel
SAK-C164CM-4EF AB-Step	SP000104063	PG-TQFP-64-4	as SAF-C164CM-4EF, -40°C to 125°C, tape & reel

SMD = Surface Mounted Device



Type	Ordering Code	Package	Description
<b>Microcontrollers, 16-bit</b>			
<b>C166 Family</b>			
<b>C165 Series</b>			
SAB-C165-LF HA-Step	SP000011595	PG-TQFP-100-1	as SAB-C165-LM, P-TQFP package, operating range 5 V, tray
SAB-C165-LF HA-Step	SP000011596	PG-TQFP-100-1	as SAB-C165-LF, tape & reel
SAF-C165-LF HA-Step	SP000011631	PG-TQFP-100-1	as SAB-C165-LF, -40°C to 85°C, tape & reel
SAB-C165-LF3V HA-Step	SP000011597	PG-TQFP-100-1	as SAB-C165-LF, operating range 3 V, tape & reel
SAF-C165-LF3V HA-Step	SP000011632	PG-TQFP-100-1	as SAB-C165-LF3V, -40°C to 85°C, tape & reel
SAB-C165-L25F HA-Step	SP000011591	PG-TQFP-100-1	as SAB-C165-LF, 25-MHz clock frequency, tray
SAB-C165-L25F HA-Step	SP000011592	PG-TQFP-100-1	as SAB-C165-LF, tape & reel
SAF-C165-L25F HA-Step	SP000012870	PG-TQFP-100-1	as SAB-C165-L25F, -40°C to 85°C, tape & reel
SAB-C165-LM HA-Step	SP000011598	PG-MQFP-100-2	ROMless, 2-Kbyte RAM, MCU-Core, additional 8 fast ext. interrupt inputs, 16-Mbyte address range, watchdog timer, 2 complex timer units, 2 serial interfaces, operating range 5 V, 20-MHz clock frequency, tray
SAB-C165-LM HA-Step	SP000011599	PG-MQFP-100-2	as SAB-C165-LM, tape & reel
SAF-C165-LM HA-Step	SP000011633	PG-MQFP-100-2	as SAB-C165-LM, -40°C to 85°C, tray
SAF-C165-LM HA-Step	SP000011634	PG-MQFP-100-2	as SAF-C165-LM, tape & reel
SAB-C165-LM3V HA-Step	SP000011600	PG-MQFP-100-2	as SAB-C165-LM, operating range 3 V, tape & reel
SAF-C165-LM3V HA-Step	SP000011635	PG-MQFP-100-2	as SAB-C165-LM3V, -40°C to 85°C, tape & reel
SAB-C165-L25M HA-Step	SP000011593	PG-MQFP-100-2	as SAB-C165-LM, 25-MHz clock frequency, tray
SAB-C165-L25M HA-Step	SP000011594	PG-MQFP-100-2	as SAB-C165-LM, tape & reel
SAF-C165-L25M HA-Step	SP000011629	PG-MQFP-100-2	as SAB-C165-L25M, -40°C to 85°C, tray
SAF-C165-L25M HA-Step	SP000011630	PG-MQFP-100-2	as SAB-C165-LM, tape & reel

SMD = Surface Mounted Device

# Microcontrollers

Type	Ordering Code	Package	Description
<b>Microcontrollers, 16-bit</b>			
<b>C166 Family C167CR Series</b>			
SAB-C167CR-LM HA+-Step	SP000103462	PG-MQFP-144-6	ROMless, 2 × 2-Kbyte RAM, MCU-Core, 10-bit A/D converter, PWM unit, additional 8 fast ext. interrupt inputs, 16-Mbyte address range, watchdog timer, 2 complex timer units, two capture/compare units (32 registers, 4 timers), additional I/O lines, 2 serial interfaces, with CAN, with PLL, 20-MHz clock frequency, tray
SAB-C167CR-LM HA+-Step	SP000103463	PG-MQFP-144-6	as SAB-C167CR-LM, tape & reel
SAF-C167CR-LM HA+-Step	SP000103464	PG-MQFP-144-6	as SAF-C167CR-LM, tray
SAF-C167CR-LM HA+-Step	SP000103465	PG-MQFP-144-6	as SAF-C167CR-LM, tape & reel
SAK-C167CR-LM HA+-Step	SP000103466	PG-MQFP-144-6	as SAK-C167CR-LM, HA+-Step, tray
SAK-C167CR-LM HA+-Step	SP000103467	PG-MQFP-144-6	as SAK-C167CR-LM, HA+-Step, tape & reel
SAK-C167CR-L33M HA+-Step	SP000103460	PG-MQFP-144-6	as SAK-C167CR-L33M, HA+-Step, tray
SAK-C167CR-L33M HA+-Step	SP000103461	PG-MQFP-144-6	as SAK-C167CR-L33M, HA+-Step, tape & reel

## C166 Family C167CS Series

SAB-C167CS-LM CA+-Step	SP000103483	PG-MQFP-144-6	as SAB-C167CR-LM, two on-chip CAN-interfaces, tray
SAB-C167CS-LM CA+-Step	SP000103484	PG-MQFP-144-6	as SAB-C167CS-LM, tape & reel
SAF-C167CS-LM CA+-Step	SP000103487	PG-MQFP-144-6	as SAB-C167CS-LM, -40°C to 85°C, tray
SAF-C167CS-LM CA+-Step	SP000103488	PG-MQFP-144-6	as SAF-C167CS-LM, tape & reel
SAK-C167CS-LM CA+-Step	SP000103492	PG-MQFP-144-6	as SAB-C167CS-LM, -40°C to 125°C, tray
SAK-C167CS-LM CA+-Step	SP000103493	PG-MQFP-144-6	as SAK-C167CS-LM, tape & reel
SAF-C167CS-L16M3V CA+-Step	SP000103469	PG-MQFP-144-6	as SAB-C167CS-LM, 16-MHz clock frequency, operating range 3 V, tray
SAF-C167CS-L16M3V CA+-Step	SP000103470	PG-MQFP-144-6	as SAF-C167CS-L16M3V, tape & reel
SAF-C167CS-L33M CA+-Step	SP000103485	PG-MQFP-144-6	as SAB-C167CS-LM, 33-MHz clock frequency, -40°C to 85°C, tray
SAF-C167CS-L33M CA+-Step	SP000103486	PG-MQFP-144-6	as SAF-C167CS-L33M, tape & reel
SAK-C167CS-L33M CA+-Step	SP000103489	PG-MQFP-144-6	as SAF-C167CS-L33M, -40°C to 125°C, tape & reel
SAB-C167CS-L40M CA+-Step	SP000103471	PG-MQFP-144-6	as SAB-C167CS-LM, 40-MHz clock frequency, tray
SAB-C167CS-L40M CA+-Step	SP000103468	PG-MQFP-144-6	as SAB-C167CS-LM, 40-MHz clock frequency, tape & reel
SAK-C167CS-L40M CA+-Step	SP000103490	PG-MQFP-144-6	as SAB-C167CS-L40M, -40°C to 125°C, tray
SAK-C167CS-L40M CA+-Step	SP000103491	PG-MQFP-144-6	as SAK-C167CS-L40M, tape & reel

SMD = Surface Mounted Device

Type	Ordering Code	Package	Description
<b>Microcontrollers, 16-bit</b>			
<b>C166 Family</b>			
<b>C167SR Series</b>			
SAB-C167SR-LM HA+-Step	SP000103456	PG-MQFP-144-6	as SAB-C167CR-LM, without CAN interface, tray
SAB-C167SR-LM HA+-Step	SP000103457	PG-MQFP-144-6	as SAB-C167SR-LM, tape & reel
SAK-C167SR-LM HA+-Step	SP000103458	PG-MQFP-144-6	as SAB-C167SR-LM, -40°C to 125°C, tray
SAK-C167SR-LM HA+-Step	SP000103459	PG-MQFP-144-6	as SAK-C167SR-LM, tape & reel

SMD = Surface Mounted Device

# Microcontrollers

Type	Ordering Code	Package	Description
<b>Microcontrollers, 16-bit</b>			
<b>XE166 Family</b>			
<b>XE162 Series</b>			
SAF-XE162FM-24F80L AA-Step	SP000397634	PG-LQFP-64-13	Real time signal controller 192-Kbyte on-chip program memory (flash memory), 10-Kbyte on-chip program/data SRAM (PSRAM), programmable watchdog timer, oscillator watchdog, one 16-channel purpose capture/compare units (CAPCOM2), capture/compare unit (CCU60), 7 + 2-channel 10-bit A/D converter, two Full-CAN nodes, six serial interface channels, 80-MHz clock frequency, -40°C to 85°C, tape & reel
SAF-XE162FM-48F80L AA-Step	SP000397632	PG-LQFP-64-13	as SAFXE162FM-24F80L, 384-Kbyte on-chip program memory (flash memory), 16-Kbyte on-chip program/data SRAM (PSRAM), tape & reel
SAF-XE162FM-72F80L AA-Step	SP000397630	PG-LQFP-64-13	as SAFXE162FM-24F80L, 576-Kbyte on-chip program memory (flash memory), 32-Kbyte on-chip program/data SRAM (PSRAM), tape & reel
SAF-XE162FN-16F80L AA-Step	SP000518060	PG-LQFP-64-13	Real time signal controller 128-Kbyte on-chip program memory (flash memory), 8-Kbyte on-chip program/data SRAM (PSRAM), programmable watchdog timer, oscillator watchdog, one 16-channel purpose capture/compare units (CAPCOM2), capture/compare unit (CCU60), 7 + 2-channel 10-bit A/D converter, two Full-CAN nodes, six serial interface channels, 80-MHz clock frequency, -40°C to 85°C, tape & reel
SAK-XE162FN-16F80L AA-Step	SP000692008	PG-LQFP-64-13	as SAF-XE162FN-16F80L, -40°C to 125°C, tape & reel
SAF-XE162FN-24F80L AA-Step	SP000518062	PG-LQFP-64-13	as SAF-XE162FN-16F80L, 192-Kbytes on-chip program memory (flash memory), tape & reel
SAK-XE162FN-24F80L AA-Step	SP000692010	PG-LQFP-64-13	as SAF-XE162FN-24F80L, -40°C to 125°C, tape & reel
SAK-XE162FN-40F80L AA-Step	SP000634794	PG-LQFP-64-13	as SAK-XE162FN-24F80L, 320-Kbyte on-chip program memory (flash memory), 16-Kbyte on-chip program/data SRAM (PSRAM), tape & reel
SAF-XE162HM-24F80L AA-Step	SP000397674	PG-LQFP-64-13	Real time signal controller 192-Kbyte on-chip program memory (flash memory), 10-Kbyte on-chip program/data SRAM (PSRAM), programmable watchdog timer, oscillator watchdog, one 16-channel purpose capture/compare units (CAPCOM2), capture/compare unit (CCU60), 7 + 2-channel 10-bit A/D converter, no Full-CAN node, six serial interface channels, 80-MHz clock frequency, -40°C to 85°C, tape & reel
SAF-XE162HM-72F80L AA-Step	SP000397638	PG-LQFP-64-13	as SAFXE162HM-24F80L, 576-Kbyte on-chip program memory (flash memory), 32-Kbyte on-chip program/data SRAM (PSRAM), tape & reel

SMD = Surface Mounted Device

Type	Ordering Code	Package	Description
<b>Microcontrollers, 16-bit</b>			
<b>XE166 Family</b>			
<b>XE162 Series</b>			
(cont'd)			
SAF-XE162HN-16F80L AA-Step	SP000518066	PG-LQFP-64-13	Real time signal controller 128-Kbyte on-chip program memory (flash memory), 8-Kbyte on-chip program/data SRAM (PSRAM), programmable watchdog timer, oscillator watchdog, one 16-channel purpose capture/compare units (CAPCOM2), capture/compare unit (CCU60), 7 + 2-channel 10-bit A/D converter, no Full-CAN node, six serial interface channels, 80-MHz clock frequency, -40°C to 85°C, tape & reel
SAK-XE162HN-16F80L AA-Step	SP000692012	PG-LQFP-64-13	as SAF-XE162HN-16F80L, -40°C to 125°C, tape & reel
SAF-XE162HN-24F80L AA-Step	SP000518068	PG-LQFP-64-13	as SAF-XE162HN-16F80L, 192-Kbytes on-chip program memory (flash memory), tape & reel
SAK-XE162HN-24F80L AA-Step	SP000692014	PG-LQFP-64-13	as SAF-XE162HN-24F80L, -40°C to 125°C, tape & reel
SAF-XE162HN-40F80L AA-Step	SP000518070	PG-LQFP-64-13	as SAF-XE162HN-16F80L, 320-Kbytes on-chip program memory (flash memory), 16-Kbyte on-chip program/data SRAM (PSRAM), tape & reel
SAK-XE162HN-40F80L AA-Step	SP000692016	PG-LQFP-64-13	as SAF-XE162FN-40F80L, -40°C to 125°C, tape & reel

SMD = Surface Mounted Device

# Microcontrollers

Type	Ordering Code	Package	Description
<b>Microcontrollers, 16-bit</b>			
<b>XE166 Family XE164F Series</b>			
SAF-XE164F-24F66L AC-Step	SP000363794	PG-LQFP-100-3	Real time signal controller High performance CPU with five-stage pipeline 192-Kbyte on-chip program memory (flash memory), 10-Kbyte on-chip program/data SRAM (PSRAM), programmable watchdog timer, oscillator watchdog, one 16-channel purpose capture/compare units (CAPCOM2), three capture/compare units (CCU6), 11 + 5-channel 10-bit A/D converter, four Full-CAN nodes, six serial interface channels, 66-MHz clock frequency, -40°C to 85°C, tray
SAF-XE164F-24F66L AC-Step	SP000363793	PG-LQFP-100-3	as SAF-XE164F-24F66L, tape & reel
SAF-XE164F-48F66L AC-Step	SP000363785	PG-LQFP-100-3	as SAF-XE164F-24F66L, 384-Kbyte on-chip program memory (flash memory), 16-Kbyte on-chip program/data SRAM (PSRAM), tray
SAF-XE164F-48F66L AC-Step	SP000363784	PG-LQFP-100-3	as SAF-XE164F-48F66L, tape & reel
SAF-XE164F-72F66L AC-Step	SP000363775	PG-LQFP-100-3	as SAF-XE164F-24F66L, 576-Kbyte on-chip program memory (flash memory), 32-Kbyte on-chip program/data SRAM (PSRAM), tray
SAF-XE164F-96F66L AC-Step	SP000363762	PG-LQFP-100-3	as SAF-XE164F-72F66L, 768-Kbyte on-chip program memory (flash memory), 64-Kbyte on-chip program/data SRAM (PSRAM), tray
SAF-XE164F-96F66L AC-Step	SP000363761	PG-LQFP-100-3	as SAF-XE164F-96F66L, tape & reel
SAF-XE164F-96F80L AC-Step	SP000450812	PG-LQFP-100-3	as SAF-XE164F-96F66L, 80-MHz clock frequency, tape & reel
SAF-XE164FM-24F80L AA-Step	SP000397562	PG-LQFP-100-8	Real time signal controller High performance CPU with five-stage pipeline and integrated memory protection unit (MPU) 192-Kbyte on-chip program memory (flash memory), 10-Kbyte on-chip program/data SRAM (PSRAM), programmable watchdog timer, oscillator watchdog, one 16-channel purpose capture/compare units (CAPCOM2), three capture/compare units (CCU6), 11 + 5-channel 10-bit A/D converter, four Full-CAN nodes, six serial interface channels, 80-MHz clock frequency, -40°C to 85°C, tape & reel
SAF-XE164FM-48F80L AA-Step	SP000397560	PG-LQFP-100-8	as SAF-XE164FM-24F80L, 384-Kbyte on-chip program memory (flash memory), 16-Kbyte on-chip program/data SRAM (PSRAM), tape & reel
SAK-XE164FM-48F80L AA-Step	SP000628602	PG-LQFP-100-8	as SAF-XE164FM-48F80L, -40°C to 125°C, tape & reel
SAF-XE164FM-72F80L AA-Step	SP000397558	PG-LQFP-100-8	as SAF-XE164FM-24F80L, 576-Kbyte on-chip program memory (flash memory), 32-Kbyte on-chip program/data SRAM (PSRAM), tape & reel
SAK-XE164FM-72F80L AA-Step	SP000628606	PG-LQFP-100-8	as SAF-XE164FM-72F80L, -40°C to 125°C, tape & reel

SMD = Surface Mounted Device

Type	Ordering Code	Package	Description
<b>Microcontrollers, 16-bit</b>			
<b>XE166 Family</b>			
<b>XE164F Series</b>			
(cont'd)			
SAF-XE164FN-16F80L AA-Step	SP000518034	PG-LQFP-100-8	Real time signal controller High performance CPU with five-stage pipeline 128-Kbyte on-chip program memory (flash memory), 8-Kbyte on-chip program/data SRAM (PSRAM), programmable watchdog timer, oscillator watchdog, one 16-channel purpose capture/compare units (CAPCOM2), three capture/compare units (CCU6), 11 + 5-channel 10-bit A/D converter, four Full-CAN nodes, six serial interface channels, 80-MHz clock frequency, -40°C to 85°C, tape & reel
SAK-XE164FN-16F80L AA-Step	SP000692040	PG-LQFP-100-8	as SAF-XE164FN-16F80L, -40°C to 125°C, tape & reel
SAF-XE164FN-24F80L AA-Step	SP000518036	PG-LQFP-100-8	as SAF-XE164FN-16F80L, 192-Kbyte on-chip program memory (flash memory), tape & reel
SAK-XE164FN-24F80L AA-Step	SP000692042	PG-LQFP-100-8	as SAF-XE164FN-24F80L, -40°C to 125°C, tape & reel
SAF-XE164FN-40F80L AA-Step	SP000518038	PG-LQFP-100-8	as SAF-XE164FN-40F80L, 320-Kbytes on-chip program memory (flash memory), 16-Kbyte on-chip program/data SRAM (PSRAM), tape & reel
SAK-XE164FN-40F80L AA-Step	SP000634792	PG-LQFP-100-8	as SAF-XE164FN-40F80L, -40°C to 125°C, tape & reel

SMD = Surface Mounted Device

# Microcontrollers

Type	Ordering Code	Package	Description
<b>Microcontrollers, 16-bit</b>			
<b>XE166 Family XE164G Series</b>			
■ SAF-XE164G-24F66L AC-Step	SP000363797	PG-LQFP-100-3	Real time signal controller High performance CPU with five-stage pipeline 192-Kbyte on-chip program memory (flash memory), 10-Kbyte on-chip program/data SRAM (PSRAM), programmable watchdog timer, oscillator watchdog, one 16-channel purpose capture/ compare units (CAPCOM2), two capture/compare units (CCU6) 6+ 5-channel 10-Bit A/D converter, two Full-CAN nodes, four serial interface channels, 66-MHz clock frequency, -40°C to 85°C, tray
■ SAF-XE164G-24F66L AC-Step	SP000363795	PG-LQFP-100-3	as SAF-XE164G-24F66L, tape & reel
■ SAF-XE164G-48F66L AC-Step	SP000363787	PG-LQFP-100-3	as SAF-XE164G-24F66L, 384-Kbyte on-chip program memory (flash memory), 16-Kbyte on-chip program/data SRAM (PSRAM), tray
SAF-XE164G-96F66L AC-Step	SP000363764	PG-LQFP-100-3	as SAF-XE164G-24F66L, 768-Kbyte on-chip program memory (flash memory), 64-Kbyte on-chip program/data SRAM (PSRAM), tray
■ SAF-XE164GM-24F80L AA-Step	SP000397568	PG-LQFP-100-8	Real time signal controller High performance CPU with five-stage pipeline and integrated memory protection unit (MPU) 192-Kbyte on-chip program memory (flash memory), 10-Kbyte on-chip program/data SRAM (PSRAM), programmable watchdog timer, oscillator watchdog, one 16-channel purpose capture/ compare units (CAPCOM2), two capture/compare units (CCU6) 6+ 5-channel 10-Bit A/D converter, two Full-CAN nodes, four serial interface channels, 80-MHz clock frequency, -40°C to 85°C, tape & reel
SAF-XE164GM-48F80L AA-Step	SP000397566	PG-LQFP-100-8	as SAF-XE164GM-24F80L, 384-Kbyte on-chip program memory (flash memory), 16-Kbyte on-chip program/data SRAM (PSRAM), tape & reel
SAF-XE164GM-72F80L AA-Step	SP000397564	PG-LQFP-100-8	as SAF-XE164GM-24F80L, 576-Kbyte on-chip program memory (flash memory), 32-Kbyte on-chip program/data SRAM (PSRAM), tape & reel
SAK-XE164GM-72F80L AA-Step	SP000628618	PG-LQFP-100-8	as SAF-XE164GM-72F80L, -40°C to 125°C, tape & reel
SAF-XE164GN-16F80L AA-Step	SP000518040	PG-LQFP-100-8	Real time signal controller High performance CPU with five-stage pipeline 128-Kbyte on-chip program memory (flash memory), 8-Kbyte on-chip program/data SRAM (PSRAM), programmable watchdog timer, oscillator watchdog, one 16-channel purpose capture/ compare units (CAPCOM2), two capture/compare units (CCU6) 6+ 5-channel 10-Bit A/D converter, two Full-CAN nodes, four serial interface channels, 80-MHz clock frequency, -40°C to 85°C, tape & reel
SAK-XE164GN-16F80L AA-Step	SP000692044	PG-LQFP-100-8	as SAF-XE164GN-16F80L, -40°C to 125°C, tape & reel
SAF-XE164GN-24F80L AA-Step	SP000518042	PG-LQFP-100-8	as SAF-XE164GN-16F80L, 192-Kbyte on-chip program memory (flash memory), tape & reel
SAK-XE164GN-24F80L AA-Step	SP000692046	PG-LQFP-100-8	as SAF-XE164GN-24F80L, -40°C to 125°C, tape & reel
SAF-XE164GN-40F80L AA-Step	SP000518044	PG-LQFP-100-8	as SAF-XE164GN-40F80L, 320-Kbyte on-chip program memory (flash memory), 16-Kbyte on-chip program/data SRAM (PSRAM), tape & reel
SAK-XE164GN-40F80L AA-Step	SP000692048	PG-LQFP-100-8	as SAF-XE164GN-40F80L, -40°C to 125°C, tape & reel

SMD = Surface Mounted Device



Type	Ordering Code	Package	Description
<b>Microcontrollers, 16-bit</b>			
<b>XE166 Family XE164H Series</b>			
■ SAF-XE164H-24F66L AC-Step	SP000363799	PG-LQFP-100-3	Real time signal controller High performance CPU with five-stage pipeline 192-Kbyte on-chip program memory (flash memory), 10-Kbyte on-chip program/data SRAM (PSRAM), programmable watchdog timer, oscillator watchdog, one 16-channel purpose capture/ compare units (CAPCOM2), three capture/compare units (CCU6) 11 + 5-channel 10-Bit A/D converter, no Full-CAN node, six serial interface channels, 66-MHz clock frequency, -40°C to 85°C, tray
■ SAF-XE164H-72F66L AC-Step	SP000363780	PG-LQFP-100-3	as SAF-XE164H-24F66L, 576-Kbyte on-chip program memory (flash memory), 32-Kbyte on-chip program/data SRAM (PSRAM), tray
SAF-XE164H-96F66L AC-Step	SP000363766	PG-LQFP-100-3	as SAF-XE164H-24F66L, 768-Kbyte on-chip program memory (flash memory), 64-Kbyte on-chip program/data SRAM (PSRAM), tray
SAF-XE164H-96F66L AC-Step	SP000363765	PG-LQFP-100-3	as SAF-XE164H-96F66L, tape & reel
■ SAF-XE164HM-24F80L AA-Step	SP000397574	PG-LQFP-100-8	Real time signal controller High performance CPU with five-stage pipeline and integrated memory protection unit (MPU) 192-Kbyte on-chip program memory (flash memory), 10-Kbyte on-chip program/data SRAM (PSRAM), programmable watchdog timer, oscillator watchdog, one 16-channel purpose capture/ compare units (CAPCOM2), three capture/compare units (CCU6) 11 + 5-channel 10-Bit A/D converter, no Full-CAN node, six serial interface channels, 80-MHz clock frequency, -40°C to 85°C, tape & reel
SAF-XE164HM-72F80L AA-Step	SP000397570	PG-LQFP-100-8	as SAF-XE164HM-24F80L, 576-Kbyte on-chip program memory (flash memory), 32-Kbyte on-chip program/data SRAM (PSRAM), tape & reel
SAF-XE164HN-16F80L AA-Step	SP000518046	PG-LQFP-100-8	Real time signal controller High performance CPU with five-stage pipeline and integrated memory protection unit (MPU) 128-Kbyte on-chip program memory (flash memory), 8-Kbyte on-chip program/data SRAM (PSRAM), programmable watchdog timer, oscillator watchdog, one 16-channel purpose capture/ compare units (CAPCOM2), three capture/compare units (CCU6) 11 + 5-channel 10-Bit A/D converter, no Full-CAN node, six serial interface channels, 80-MHz clock frequency, -40°C to 85°C, tape & reel
SAK-XE164HN-16F80L AA-Step	SP000692052	PG-LQFP-100-8	as SAF-XE164HN-16F80L, -40°C to 125°C, tape & reel
SAF-XE164HN-24F80L AA-Step	SP000518052	PG-LQFP-100-8	as SAF-XE164HN-16F80L, 192-Kbyte on-chip program memory (flash memory), tape & reel
SAK-XE164HN-24F80L AA-Step	SP000692054	PG-LQFP-100-8	as SAF-XE164HN-24F80L, -40°C to 125°C, tape & reel
SAF-XE164HN-40F80L AA-Step	SP000518048	PG-LQFP-100-8	as SAF-XE164HN-24F80L, 320-Kbyte on-chip program memory (flash memory), 16-Kbyte on-chip program/data SRAM (PSRAM), tape & reel
SAK-XE164HN-40F80L AA-Step	SP000692056	PG-LQFP-100-8	as SAF-XE164HN-40F80L, -40°C to 125°C, tape & reel

SMD = Surface Mounted Device

# Microcontrollers

Type	Ordering Code	Package	Description
<b>Microcontrollers, 16-bit</b>			
<b>XE166 Family XE164K Series</b>			
■ SAF-XE164K-48F66L AC-Step	SP000363791	PG-LQFP-100-3	Real time signal controller High performance CPU with five-stage pipeline 384-Kbyte on-chip program memory (flash memory), 16-Kbyte on-chip program/data SRAM (PSRAM), programmable watchdog timer, oscillator watchdog, one 16-channel purpose capture/ compare units (CAPCOM2), two capture/compare units (CCU6) 6 + 5-channel 10-Bit A/D converter, no Full-CAN node, four serial interface channels, 66-MHz clock frequency, -40°C to 85°C, tray
SAF-XE164K-96F66L AC-Step	SP000363771	PG-LQFP-100-3	as SAF-XE164K-48F66L, 768-Kbyte on-chip program memory (flash memory), 64-Kbyte on-chip program/data SRAM (PSRAM), tray
SAF-XE164K-96F66L AC-Step	SP000363770	PG-LQFP-100-3	as SAF-XE164K-96F66L, tape & reel
■ SAF-XE164KM-24F80L AA-Step	SP000397580	PG-LQFP-100-8	Real time signal controller High performance CPU with five-stage pipeline and integrated memory protection unit (MPU) 192-Kbyte on-chip program memory (flash memory), 10-Kbyte on-chip program/data SRAM (PSRAM), programmable watchdog timer, oscillator watchdog, one 16-channel purpose capture/ compare units (CAPCOM2), two capture/compare units (CCU6) 6 + 5-channel 10-Bit A/D converter, no Full-CAN node, four serial interface channels, 80-MHz clock frequency, -40°C to 85°C, tape & reel
SAF-XE164KM-48F80L AA-Step	SP000397578	PG-LQFP-100-8	as SAF-XE164KM-24F80L, 384-Kbyte on-chip program memory (flash memory), 16-Kbyte on-chip program/data SRAM (PSRAM), tape & reel
SAF-XE164KM-72F80L AA-Step	SP000397576	PG-LQFP-100-8	as SAF-XE164KM-24F80L, 576-Kbyte on-chip program memory (flash memory), 32-Kbyte on-chip program/data SRAM (PSRAM), tape & reel
SAF-XE164KN-16F80L AA-Step	SP000518054	PG-LQFP-100-8	Real time signal controller High performance CPU with five-stage pipeline and integrated memory protection unit (MPU) 128-Kbyte on-chip program memory (flash memory), 8-Kbyte on-chip program/data SRAM (PSRAM), programmable watchdog timer, oscillator watchdog, one 16-channel purpose capture/ compare units (CAPCOM2), two capture/compare units (CCU6) 6 + 5-channel 10-Bit A/D converter, no Full-CAN node, four serial interface channels, 80-MHz clock frequency, -40°C to 85°C, tape & reel
SAK-XE164KN-16F80L AA-Step	SP000692058	PG-LQFP-100-8	as SAF-XE164KN-16F80L, -40°C to 125°C, tape & reel
SAF-XE164KN-24F80L AC-Step	SP000518056	PG-LQFP-100-8	as SAF-XE164KN-16F80L, 192-Kbyte on-chip program memory (flash memory), tape & reel
SAK-XE164KN-24F80L AA-Step	SP000692060	PG-LQFP-100-8	as SAF-XE164KN-24F80L, -40°C to 125°C, tape & reel
SAF-XE164KN-40F80L AA-Step	SP000518058	PG-LQFP-100-8	as SAF-XE164KN-24F80L, 320-Kbyte on-chip program memory (flash memory), 16-Kbyte on-chip program/data SRAM (PSRAM), tape & reel

SMD = Surface Mounted Device

Type	Ordering Code	Package	Description
<b>Microcontrollers, 16-bit</b>			
<b>XE166 Family XE167F Series</b>			
SAF-XE167F-48F66L AC-Step	SP000363822	PG-LQFP-144-4	Real time signal controller 384-Kbyte on-chip program memory (flash memory), 16-Kbyte on-chip program/data SRAM (PSRAM), programmable watchdog timer, oscillator watchdog, one 16-channel purpose capture/ compare units (CAPCOM2), four capture/compare units (CCU6) 16 + 8-channel 10-Bit A/D converter, five Full-CAN nodes, six serial interface channels, 66-MHz clock frequency, -40°C to 85°C, tray
SAF-XE167F-72F66L AC-Step	SP000363813	PG-LQFP-144-4	as SAF-XE167F-48F66L, 576-Kbyte on-chip program memory (flash memory), 32-Kbyte on-chip program/data SRAM (PSRAM), tray
SAF-XE167F-96F66L AC-Step	SP000363803	PG-LQFP-144-4	as SAF-XE167F-48F66L, 768-Kbyte on-chip program memory (flash memory), 64-Kbyte on-chip program/data SRAM (PSRAM), tray
SAF-XE167F-96F66L AC-Step	SP000363802	PG-LQFP-144-4	as SAF-XE167F-96F66L, tape & reel
SAF-XE167F-96F80L AC-Step	SP000450816	PG-LQFP-144-4	as SAF-XE167F-96F66L, 80-MHz clock frequency, tape & reel
SAF-XE167FM-72F80L AA-Step	SP000397582	PG-LQFP-144-13	Real time signal controller 576-Kbyte on-chip program memory (flash memory), 32-Kbyte on-chip program/data SRAM (PSRAM), programmable watchdog timer, oscillator watchdog, one 16-channel purpose capture/ compare units (CAPCOM2), four capture/compare units (CCU6) 16 + 8-channel 10-Bit A/D converter, five Full-CAN nodes, six serial interface channels, 80-MHz clock frequency, -40°C to 85°C, tape & reel
SAK-XE167FM-72F80L AA-Step	SP000628636	PG-LQFP-144-13	as SAF-XE167FM-72F80L, -40°C to 125°C, tape & reel

SMD = Surface Mounted Device

# Microcontrollers

Type	Ordering Code	Package	Description
<b>Microcontrollers, 16-bit</b>			
<b>XE166 Family XE167G Series</b>			
SAF-XE167G-48F66L AC-Step	SP000363824	PG-LQFP-144-4	Real time signal controller 384-Kbyte on-chip program memory (flash memory), 16-Kbyte on-chip program/data SRAM (PSRAM), programmable watchdog timer, oscillator watchdog, one 16-channel purpose capture/ compare units (CAPCOM2), two capture/compare units (CCU6) 8 + 8-channel 10-Bit A/D converter, two Full-CAN nodes, four serial interface channels, 66-MHz clock frequency, -40°C to 85°C, tray
SAF-XE167G-72F66L AC-Step	SP000363815	PG-LQFP-144-4	as SAF-XE167G-48F66L, 576-Kbyte on-chip program memory (flash memory), 32-Kbyte on-chip program/data SRAM (PSRAM), tray
SAF-XE167G-96F66L AC-Step	SP000363805	PG-LQFP-144-4	as SAF-XE167G-48F66L, 768-Kbyte on-chip program memory (flash memory), 64-Kbyte on-chip program/data SRAM (PSRAM), tray
SAF-XE167GM-48F80L AA-Step	SP000397590	PG-LQFP-144-13	Real time signal controller 384-Kbyte on-chip program memory (flash memory), 16-Kbyte on-chip program/data SRAM (PSRAM), programmable watchdog timer, oscillator watchdog, one 16-channel purpose capture/ compare units (CAPCOM2), two capture/compare units (CCU6) 8 + 8-channel 10-Bit A/D converter, two Full-CAN nodes, four serial interface channels, 80-MHz clock frequency, -40°C to 85°C, tape & reel
SAF-XE167GM-72F80L AA-Step	SP000397588	PG-LQFP-144-13	as SAF-XE167GM-48F80L, 576-Kbyte on-chip program memory (flash memory), 32-Kbyte on-chip program/data SRAM (PSRAM), tape & reel

SMD = Surface Mounted Device

Type	Ordering Code	Package	Description
<b>Microcontrollers, 16-bit</b>			
<b>XE166 Family XE167H Series</b>			
SAF-XE167H-48F66L AC-Step	SP000363826	PG-LQFP-144-4	Real time signal controller 384-Kbyte on-chip program memory (flash memory), 16-Kbyte on-chip program/data SRAM (PSRAM), programmable watchdog timer, oscillator watchdog, one 16-channel purpose capture/ compare units (CAPCOM2), four capture/compare unit (CCU6) 16 + 8-channel 10-Bit A/D converter, no Full-CAN nodes, six serial interface channels, 66-MHz clock frequency, -40°C to 85°C, tray
SAF-XE167H-96F66L AC-Step	SP000363806	PG-LQFP-144-4	as SAF-XE167H-48F66L, 768-Kbyte on-chip program memory (flash memory), 64-Kbyte on-chip program/data SRAM (PSRAM), tape & reel
SAF-XE167HM-48F80L AA-Step	SP000397596	PG-LQFP-144-13	Real time signal controller 384-Kbyte on-chip program memory (flash memory), 16-Kbyte on-chip program/data SRAM (PSRAM), programmable watchdog timer, oscillator watchdog, one 16-channel purpose capture/ compare units (CAPCOM2), four capture/compare unit (CCU6) 16 + 8-channel 10-Bit A/D converter, no Full-CAN nodes, six serial interface channels, 80-MHz clock frequency, -40°C to 85°C, tape & reel
SAF-XE167HM-72F80L AA-Step	SP000397594	PG-LQFP-144-13	as SAF-XE167HM-48F80L, 576-Kbyte on-chip program memory (flash memory), 32-Kbyte on-chip program/data SRAM (PSRAM), tape & reel
SAK-XE167HM-72F80L AA-Step	SP000628646	PG-LQFP-144-13	as SAF-XE167HM-72F80L, -40°C to 125°C, tape & reel

SMD = Surface Mounted Device

# Microcontrollers

Type	Ordering Code	Package	Description
<b>Microcontrollers, 16-bit</b>			
<b>XE166 Family XE167K Series</b>			
SAF-XE167K-48F66L AC-Step	SP000363828	PG-LQFP-144-4	Real time signal controller 384-Kbyte on-chip program memory (flash memory), 16-Kbyte on-chip program/data SRAM (PSRAM), programmable watchdog timer, oscillator watchdog, one 16-channel purpose capture/ compare units (CAPCOM2), two capture/compare unit (CCU6) 8 + 8-channel 10-Bit A/D converter, no Full-CAN nodes, four serial interface channels, 66-MHz clock frequency, -40°C to 85°C, tray
SAF-XE167K-48F66L AC-Step	SP000363827	PG-LQFP-144-4	as SAF-XE167K-48F66L, tape & reel
SAF-XE167K-72F66L AC-Step	SP000363819	PG-LQFP-144-4	as SAF-XE167K-48F66L, 576-Kbyte on-chip program memory (flash memory), 32-Kbyte on-chip program/data SRAM (PSRAM), tray
SAF-XE167K-72F66L AC-Step	SP000363818	PG-LQFP-144-4	as SAF-XE167K-72F66L, tape & reel
SAF-XE167K-96F66L AC-Step	SP000363809	PG-LQFP-144-4	as SAF-XE167K-48F66L, 768-Kbyte on-chip program memory (flash memory), 64-Kbyte on-chip program/data SRAM (PSRAM), tray
SAF-XE167K-96F66L AC-Step	SP000363808	PG-LQFP-144-4	as SAF-XE167K-96F66L, tape & reel
SAF-XE167KM-48F66L AA-Step	SP000397602	PG-LQFP-144-13	Real time signal controller 384-Kbyte on-chip program memory (flash memory), 16-Kbyte on-chip program/data SRAM (PSRAM), programmable watchdog timer, oscillator watchdog, one 16-channel purpose capture/ compare units (CAPCOM2), two capture/compare unit (CCU6) 8 + 8-channel 10-Bit A/D converter, no Full-CAN nodes, four serial interface channels, 80-MHz clock frequency, -40°C to 85°C, tape & reel

SMD = Surface Mounted Device

Type	Ordering Code	Package	Description
<b>Microcontrollers, 16-bit</b>			
<b>XE166 Family XE169H Series</b>			
▼ SAF-XE169FH-136F100L AA-Step	SP000782588	PG-LQFP-176-12	Real time signal controller 1,088-Kbyte on-chip program memory (flash memory), 112-Kbyte on-chip program/data SRAM (PSRAM), programmable watchdog timer, oscillator watchdog, two 16-channel purpose capture/ compare units, two capture/compare unit (CCU6) 16 + 14-channel 10-Bit A/D converter, six Full-CAN nodes, ten serial interface channels, 100-MHz clock frequency, -40°C to 85°C, tape & reel
▼ SAF-XE169FH-136F100L AB-Step	SP000874844	PG-LQFP-176-12	as SAF-XE169FH-136F100L, AB-Step, tape & reel
▼ SAF-XE169FH-200F100L AA-Step	SP000517994	PG-LQFP-176-12	Real time signal controller 1,600-Kbyte on-chip program memory (flash memory), 112-Kbyte on-chip program/data SRAM (PSRAM), programmable watchdog timer, oscillator watchdog, two 16-channel purpose capture/ compare units, two capture/compare unit (CCU6) 16 + 14-channel 10-Bit A/D converter, six Full-CAN nodes, ten serial interface channels, 100-MHz clock frequency, -40°C to 85°C, tape & reel
▼ SAF-XE169FH-200F100L AB-Step	SP000874838	PG-LQFP-176-12	as SAF-XE169FH-200F100L, AB-Step, tape & reel

SMD = Surface Mounted Device

# Microcontrollers

Type	Ordering Code	Package	Description
<b>Microcontrollers, 16-bit</b>			
<b>XC2000 Family XC223x Series</b>			
SAK-XC2236N-24F40L AA-Step	SP000527770	PG-LQFP-64-13	16/32-bit single-chip microcontroller with 32-bit performance XC2200 family High performance CPU with 5-stage pipeline, 192-Kbyte on-chip program memory, 8-Kbyte on-chip program/data SRAM(PSRAM), 1024 bytes on-chip special function register area (C166 family compatible), programmable watchdog timer and oscillator watchdog, two capture/compare units (CCU6), 7 + 2-channel 10-bit A/D converter, one Full-CAN node, four serial interface channels, 40-MHz clock frequency, -40°C to 125°C, tape & reel
SAK-XC2236N-40F80L AA-Step	SP000605510	PG-LQFP-64-13	as SAK-XC2236N-24F40L, 320-Kbyte on-chip program memory, 16-Kbyte on-chip program/data SRAM(PSRAM), 80-MHz clock frequency, tape & reel
▼ SAH-XC2237M-104F80L AA-Step	SP000720382	PG-LQFP-64-13	16/32-bit single-chip microcontroller with 32-bit performance XC2200 family High performance CPU with 5-stage pipeline, 832-Kbyte on-chip program memory, 64-Kbyte on-chip program/data SRAM(PSRAM), 1024 bytes on-chip special function register area (C166 family compatible), programmable watchdog timer and oscillator watchdog, two capture/compare units (CCU6), 7 + 2-channel 10-bit A/D converter, six Full-CAN node, four serial interface channels, 80-MHz clock frequency, -40°C to 110°C, tape & reel
SAK-XC2238N-40F40L AA-Step	SP000691244	PG-LQFP-64-13	as SAK-XC2236N-24F40L, 320-Kbyte on-chip program memory, 16-Kbyte on-chip program/data SRAM(PSRAM), six Full-CAN nodes, six serial interface channels, 40-MHz clock frequency, tape & reel
<b>XC226x Series</b>			
SAK-XC2263N-24F40L AA-Step	SP000527764	PG-LQFP-100-3	16/32-bit single-chip microcontroller with 32-bit performance XC2200 family High performance CPU with 5-stage pipeline, 192-Kbyte on-chip program memory, 8-Kbyte on-chip program/data SRAM(PSRAM), 1024 bytes on-chip special function register area (C166 family compatible), programmable watchdog timer and oscillator watchdog, two capture/compare units (CCU6), 11 + 5-channel 10-bit A/D converter, one Full-CAN node, four serial interface channels, 40-MHz clock frequency, -40°C to 125°C, tape & reel
SAK-XC2263N-40F40L AA-Step	SP000527768	PG-LQFP-100-3	as SAK-XC2263N-24F40L, 320-Kbyte on-chip program memory, 16-Kbyte on-chip program/data SRAM(PSRAM), tape & reel
SAK-XC2264-56F66L AC-Step	SP000300114	PG-LQFP-100-3	16/32-bit single-chip microcontroller with 32-bit performance XC2200 family High performance CPU with 5-stage pipeline, 448-Kbyte on-chip program memory, 16-Kbyte on-chip program/data SRAM(PSRAM), 1024 bytes on-chip special function register area (C166 family compatible), programmable watchdog timer and oscillator watchdog, one capture/compare unit (CCU6), 8-channel 10-Bit A/D converter, two Full-CAN nodes, four serial interface channels, 66-MHz clock frequency, -40°C to 125°C, tape & reel

SMD = Surface Mounted Device



Type	Ordering Code	Package	Description
<b>Microcontrollers, 16-bit</b>			
<b>XC2000 Family XC226x Series (cont'd)</b>			
SAK-XC2265N-40F80L AA-Step	SP000527774	PG-LQFP-100-3	16/32-bit single-chip microcontroller with 32-bit performance XC2200 family High performance CPU with 5-stage pipeline, 320-Kbyte on-chip program memory, 16-Kbyte on-chip program/data SRAM(PSRAM), 1024 bytes on-chip special function register area (C166 family compatible), programmable watchdog timer and oscillator watchdog, two capture/compare units (CCU6), 11 + 5-channel 10-bit A/D converter, three Full-CAN nodes, six serial interface channels, 80-MHz clock frequency, -40°C to 125°C, tape & reel
SAK-XC2267-56F66L AC-Step	SP000300104	PG-LQFP-100-3	16/32-bit single-chip microcontroller with 32-bit performance XC2200 family High performance CPU with 5-stage pipeline, 448-Kbyte on-chip program memory, 16-Kbyte on-chip program/data SRAM(PSRAM), 1024 bytes on-chip special function register area (C166 family compatible), programmable watchdog timer and oscillator watchdog, four capture/compare unit (CCU6), 8 + 8-channel 10-Bit A/D converter, five Full-CAN nodes, six serial interface channels, 66-MHz clock frequency, -40°C to 125°C, tape & reel
SAK-XC2267-96F66L AC-Step	SP000250942	PG-LQFP-100-3	as SAK-XC2267-56F66L, 768-Kbyte on-chip program memory (flash memory), 64-Kbyte on-chip program/data SRAM (PSRAM), tape & reel
SAK-XC2267-96F80L AC-Step	SP000300101	PG-LQFP-100-3	as SAK-XC2267-96F66L, 80-MHz clock frequency, tape & reel
SAK-XC2267M-72F80L AC-Step	SP000455314	PG-LQFP-100-8	as SAK-XC2267-96F80L, 576-Kbyte on-chip program memory, 32-Kbyte on-chip program/data SRAM (PSRAM), six Full-CAN nodes, eight serial interface channels, tape & reel
SAK-XC2267M-104F80L AC-Step	SP000398034	PG-LQFP-100-8	as SAK-XC2267M-72F80L, 832-Kbyte on-chip program memory, 32-Kbyte on-chip program/data SRAM (PSRAM), tape & reel
<b>XC228x</b>			
SAK-XC2287-96F66L AC-Step	SP000432418	PG-LQFP-144-4	16/32-bit single-chip microcontroller with 32-bit performance XC2200 family High performance CPU with 5-stage pipeline, 768-Kbyte on-chip program memory, 64-Kbyte on-chip program/data SRAM(PSRAM), 1024 bytes on-chip special function register area (C166 family compatible), programmable watchdog timer and oscillator watchdog, four capture/compare unit (CCU6), 16+ 8-channel 10-Bit A/D converter, five Full-CAN nodes, six serial interface channels, 66-MHz clock frequency, -40°C to 125°C, tape & reel
SAK-XC2287-96F80L AC-Step	SP000300037	PG-LQFP-144-4	as SAK-XC2287-96F66L, 80-MHz clock frequency, tape & reel
SAK-XC2287M-104F80L AA-Step	SP000436560	PG-LQFP-144-13	16/32-bit single-chip microcontroller with 32-bit performance XC2200 family High performance CPU with 5-stage pipeline, 832-Kbyte on-chip program memory, 32-Kbyte on-chip program/data SRAM(PSRAM), 1024 bytes on-chip special function register area (C166 family compatible), programmable watchdog timer and oscillator watchdog, four capture/compare unit (CCU6), 16+ 8-channel 10-Bit A/D converter, six Full-CAN nodes, eight serial interface channels, 80-MHz clock frequency, -40°C to 125°C, tape & reel

SMD = Surface Mounted Device

# Microcontrollers

Type	Ordering Code	Package	Description
<b>Microcontrollers, 16-bit</b>			
<b>XC2000 Family XC228x Series (cont'd)</b>			
▼ SAK-XC2288H-200F100L AB-Step	SP000844806	PG-LQFP-144-13	16/32-bit single-chip microcontroller with 32-bit performance XC2200 family/high line High performance CPU with 5-stage pipeline, 1,600-Kbyte on-chip program memory, 80-Kbyte on-chip program/data SRAM(PSRAM), 1024 bytes on-chip special function register area (C166 family compatible), programmable watchdog timer and oscillator watchdog, four capture/compare unit (CCU6), 16+ 8-channel 10-Bit A/D converter, four Full-CAN nodes, ten serial interface channels, 100-MHz clock frequency, -40°C to 125°C, tape & reel
▼ SAK-XC2289H-200F100L AB-Step	SP000700616	PG-LQFP-144-13	16/32-bit single-chip microcontroller with 32-bit performance XC2200 family/high line High performance CPU with 5-stage pipeline, 1,600-Kbyte on-chip program memory, 112-Kbyte on-chip program/data SRAM(PSRAM), 1024 bytes on-chip special function register area (C166 family compatible), programmable watchdog timer and oscillator watchdog, four capture/compare unit (CCU6), 16+ 8-channel 10-Bit A/D converter, two FlexRay nodes, six Full-CAN nodes, ten serial interface channels, 100-MHz clock frequency, -40°C to 125°C, tape & reel
▼ SAK-XC2299H-200F100L AB-Step	SP000761326	PG-LQFP-176-12	16/32-bit single-chip microcontroller with 32-bit performance XC2200 family/high line High performance CPU with 5-stage pipeline, 1,600-Kbyte on-chip program memory, 112-Kbyte on-chip program/data SRAM(PSRAM), 1024 bytes on-chip special function register area (C166 family compatible), programmable watchdog timer and oscillator watchdog, four capture/compare unit (CCU6), 16+ 14-channel 10-Bit A/D converter, two FlexRay nodes, six Full-CAN nodes, ten serial interface channels, 100-MHz clock frequency, -40°C to 125°C, tape & reel

SMD = Surface Mounted Device

Type	Ordering Code	Package	Description
<b>Microcontrollers, 16-bit</b>			
<b>XC2000 Family XC23xx Series</b>			
SAK-XC2336B-24F80L AA-Step	SP000627176	PG-LQFP-64-6	16/32-bit single-chip microcontroller with 32-bit performance XC2300 family High performance CPU with 5-stage pipeline, 192-Kbyte on-chip program memory, 8-Kbyte on-chip program/data SRAM(PSRAM), 1024 bytes on-chip special function register area (C166 family compatible), programmable watchdog timer and oscillator watchdog, two capture/compare unit (CCU6), 7 + 2-channel 10-Bit A/D converter, two Full-CAN nodes, four serial interface channels, 80-MHz clock frequency, -40°C to 125°C, tape & reel
SAK-XC2336B-40F20L AA-Step	SP000559070	PG-LQFP-64-6	as SAK-XC2336B-24F80L, 320-Kbyte on-chip program memory, 16-Kbyte on-chip program/data SRAM(PSRAM), 20-MHz clock frequency, tape & reel
▼ SAK-XC2336B-40F66L AA-Step	SP000541986	PG-LQFP-64-6	as SAK-XC2336B-40F20L, 66-MHz clock frequency, tape & reel
SAK-XC2336B-40F80L AA-Step	SP000541980	PG-LQFP-64-6	as SAK-XC2336B-40F20L, 80-MHz clock frequency, tape & reel
▼ SAH-XC2361B-40F66L AA-Step	SP000365913	PG-LQFP-100-8	16/32-bit single-chip microcontroller with 32-bit performance XC2300 family High performance CPU with 5-stage pipeline, 320-Kbyte on-chip program memory, 16-Kbyte on-chip program/data SRAM(PSRAM), 1024 bytes on-chip special function register area (C166 family compatible), programmable watchdog timer and oscillator watchdog, two capture/compare unit (CCU6), 11 + 5-channel 10-Bit A/D converter, two Full-CAN nodes, six serial interface channels, 66-MHz clock frequency, -40°C to 110°C, tape & reel
▼ SAH-XC2361B-40F80L AA-Step	SP000524448	PG-LQFP-100-8	as SAH-XC2361B40F66L, 80-MHz clock frequency, tape & reel
▼ SAK-XC2363A-56F80L AA-Step	SP000722418	PG-LQFP-100-8	16/32-bit single-chip microcontroller with 32-bit performance XC2300 family High performance CPU with 5-stage pipeline, 448-Kbyte on-chip program memory, 32/16-Kbyte on-chip program/data SRAM(PSRAM), 1024 bytes on-chip special function register area (C166 family compatible), programmable watchdog timer and oscillator watchdog, two capture/compare unit (CCU6), 4+ 4-channel 10-Bit A/D converter, two Full-CAN nodes, two serial interface channels, 80-MHz clock frequency, -40°C to 125°C, tape & reel
▼ SAK-XC2363A-72F80L AA-Step	SP000722420	PG-LQFP-100-8	as SAK-XC2363A-56F80L, 576-Kbyte on-chip program memory, tape & reel
▼ SAK-XC2363A-104F80L AA-Step	SP000722424	PG-LQFP-100-8	as SAK-XC2363A-56F80L, 832-Kbyte on-chip program memory, tape & reel
▼ SAK-XC2363B-24F80L AA-Step	SP000541948	PG-LQFP-100-8	16/32-bit single-chip microcontroller with 32-bit performance XC2300 family High performance CPU with 5-stage pipeline, 192-Kbyte on-chip program memory, 8-Kbyte on-chip program/data SRAM(PSRAM), 1024 bytes on-chip special function register area (C166 family compatible), programmable watchdog timer and oscillator watchdog, two capture/compare unit (CCU6), 4 + 4-channel 10-Bit A/D converter, two Full-CAN nodes, two serial interface channels, 80-MHz clock frequency, -40°C to 125°C, tape & reel
▼ SAK-XC2363B-40F80L AA-Step	SP000541946	PG-LQFP-100-8	as SAK-XC2363B-24F80L, 320-Kbyte on-chip program memory, tape & reel

SMD = Surface Mounted Device

# Microcontrollers

Type	Ordering Code	Package	Description
<b>Microcontrollers, 16-bit</b>			
<b>XC2000 Family XC23xx Series (cont'd)</b>			
▼ SAK-XC2364A-56F80L AA-Step	SP000526786	PG-LQFP-100-8	16/32-bit single-chip microcontroller with 32-bit performance XC2300 family High performance CPU with 5-stage pipeline, 448-Kbyte on-chip program memory, 32-Kbyte on-chip program/data SRAM(PSRAM), 1024 bytes on-chip special function register area (C166 family compatible), programmable watchdog timer and oscillator watchdog, two capture/compare unit (CCU6), 11 + 5-channel 10-Bit A/D converter, two Full-CAN nodes, four serial interface channels, 80-MHz clock frequency, -40°C to 125°C, tape & reel
SAK-XC2364A-104F80L AA-Step	SP000526792	PG-LQFP-100-8	as SAK-XC2364A-72F80L, 832-Kbyte on-chip program memory, tape & reel
SAK-XC2364B-24F80L AA-Step	SP000361923	PG-LQFP-100-8	16/32-bit single-chip microcontroller with 32-bit performance XC2300 family High performance CPU with 5-stage pipeline, 192-Kbyte on-chip program memory , 8-Kbyte on-chip program/data SRAM(PSRAM), 1024 bytes on-chip special function register area (C166 family compatible), programmable watchdog timer and oscillator watchdog, two capture/compare unit (CCU6), 11 + 5-channel 10-Bit A/D converter, two Full-CAN nodes, four serial interface channels, 80-MHz clock frequency, -40°C to 125°C, tape & reel
▼ SAK-XC2364B-40F80L AA-Step	SP000541956	PG-LQFP-100-8	as SAK-XC2364B-24F80L, 320-Kbyte on-chip program memory, tape & reel
▼ SAK-XC2365A-56F80L AA-Step	SP000526910	PG-LQFP-100-8	16/32-bit single-chip microcontroller with 32-bit performance XC2300 family High performance CPU with 5-stage pipeline, 448-Kbyte on-chip program memory , 32/16-Kbyte on-chip program/data SRAM(PSRAM), 1024 bytes on-chip special function register area (C166 family compatible), programmable watchdog timer and oscillator watchdog, two capture/compare unit (CCU6), 11 + 5-channel 10-Bit A/D converter, three Full-CAN nodes, six serial interface channels, 80-MHz clock frequency, -40°C to 125°C, tape & reel
SAK-XC2365A-104F80L AA-Step	SP000448776	PG-LQFP-100-8	as SAK-XC2365A-56F80L, 832-Kbyte on-chip program memory, 32-Kbyte on-chip program/data SRAM(PSRAM), tape & reel
▼ SAK-XC2365B-24F80L AA-Step	SP000486210	PG-LQFP-100-3	16/32-bit single-chip microcontroller with 32-bit performance XC2300 family High performance CPU with 5-stage pipeline, 192-Kbyte on-chip program memory , 8-Kbyte on-chip program/data SRAM(PSRAM), 1024 bytes on-chip special function register area (C166 family compatible), programmable watchdog timer and oscillator watchdog, two capture/compare unit (CCU6), 11 + 5-channel 10-Bit A/D converter, three Full-CAN nodes, six serial interface channels, 80-MHz clock frequency, -40°C to 125°C, tape & reel
SAK-XC2365B-40F80L AA-Step	SP000541896	PG-LQFP-100-8	as SAK-XC2365B-24F80L, 320-Kbyte on-chip program memory, 16-Kbyte on-chip program/data SRAM(PSRAM), tape & reel

SMD = Surface Mounted Device

Type	Ordering Code	Package	Description
<b>Microcontrollers, 16-bit</b>			
<b>XC2000 Family XC23xx Series (cont'd)</b>			
SAF-XC2387-72F66L AC-Step	SP000314394	PG-LQFP-144-4	16/32-bit single-chip microcontroller with 32-bit performance XC2300 family High performance CPU with 5-stage pipeline, 576-Kbyte on-chip program memory, 32-Kbyte on-chip program/data SRAM(PSRAM), 1024 bytes on-chip special function register area (C166 family compatible), programmable watchdog timer and oscillator watchdog, four capture/compare unit (CCU6), 16+ 8-channel 10-Bit A/D converter, three Full-CAN nodes, six serial interface channels, 66-MHz clock frequency, -40°C to 85°C, tape & reel
▼ SAK-XC2387A-56F80L AA-Step	SP000526972	PG-LQFP-144-13	as SAF-XC2387-72F66L, 448-Kbyte on-chip program memory, 32/16-Kbyte on-chip program data/data SRAM(PSRAM), 80-MHz clock frequency, -40°C to 125°C, tape & reel
SAK-XC2387A-104F80L AA-Step	SP000448780	PG-LQFP-144-13	as SAK-XC2387-56F80L, 832-Kbyte on-chip program memory, tape & reel
▼ SAK-XC2387C-136F100L AB-Step	SP000722460	PG-LQFP-144-13	as SAK-XC2387-72F66L, 1,088-Kbyte on-chip program memory, 80-Kbyte on-chip program/data SRAM(PSRAM), 100-MHz clock frequency, tape & reel

**XC27xx Series**

SAK-XC2734X-40F80L AA-Step	SP000627030	PG-LQFP-64-6	16/32-bit single-chip microcontroller with 32-bit performance XC2700 family High performance CPU with 5-stage pipeline, 320-Kbyte on-chip program memory, 16-Kbyte on-chip program/data SRAM(PSRAM), 1024 bytes on-chip special function register area (C166 family compatible), programmable watchdog timer and oscillator watchdog, two capture/compare unit (CCU6), 7 + 2-channel 10-Bit A/D converter, two Full-CAN nodes, four serial interface channels, 80-MHz clock frequency, -40°C to 125°C, tape & reel
SAK-XC2764X-40F80L AA-Step	SP000627028	PG-LQFP-100-8	16/32-bit single-chip microcontroller with 32-bit performance XC2700 family High performance CPU with 5-stage pipeline, 320-Kbyte on-chip program memory, 16-Kbyte on-chip program/data SRAM(PSRAM), 1024 bytes on-chip special function register area (C166 family compatible), programmable watchdog timer and oscillator watchdog, two capture/compare unit (CCU6), 11 + 5-channel 10-Bit A/D converter, two Full-CAN nodes, four serial interface channels, 80-MHz clock frequency, -40°C to 125°C, tape & reel
SAK-XC2765X-72F80L AA-Step	SP000448084	PG-LQFP-100-8	16/32-bit single-chip microcontroller with 32-bit performance XC2700 family High performance CPU with 5-stage pipeline, 576-Kbyte on-chip program memory, 32-Kbyte on-chip program/data SRAM(PSRAM), 1024 bytes on-chip special function register area (C166 family compatible), programmable watchdog timer and oscillator watchdog, four capture/compare unit (CCU6), 11 + 5-channel 10-Bit A/D converter, two Full-CAN nodes, six serial interface channels, 80-MHz clock frequency, -40°C to 125°C, tape & reel
SAK-XC2765X-104F80L AA-Step	SP000443762	PG-LQFP-100-8	as SAK-XC2765X-72F80L, 832-Kbyte on-chip program memory, tape & reel
SAK-XC2766X-96F66L AC-Step	SP000366063	PG-LQFP-100-2	16/32-bit single-chip microcontroller with 32-bit performance XC2700 family High performance CPU with 5-stage pipeline, 768-Kbyte on-chip program memory, 32-Kbyte on-chip program/data SRAM(PSRAM), 1024 bytes on-chip special function register area (C166 family compatible), programmable watchdog timer and oscillator watchdog, four capture/compare unit (CCU6), 11 + 5-channel 10-Bit A/D converter, two Full-CAN nodes, four serial interface channels, 66-MHz clock frequency, -40°C to 125°C, tape & reel

SMD = Surface Mounted Device

# Microcontrollers

Type	Ordering Code	Package	Description
<b>Microcontrollers, 16-bit</b>			
<b>XC2000 Family XC27xx Series (cont'd)</b>			
SAK-XC2785X-104F80L AA-Step	SP000439080	PG-LQFP-144-13	16/32-bit single-chip microcontroller with 32-bit performance XC2700 family High performance CPU with 5-stage pipeline, 832-Kbyte on-chip program memory, 32-Kbyte on-chip program/data SRAM(PSRAM), 1024 bytes on-chip special function register area (C166 family compatible), programmable watchdog timer and oscillator watchdog, four capture/compare unit (CCU6), 16 + 8-channel 10-Bit A/D converter, two Full-CAN nodes, six serial interface channels, 80-MHz clock frequency, -40°C to 125°C, tape & reel
SAF-XC2786X-96F66L AC-Step	SP000369364	PG-LQFP-144-4	16/32-bit single-chip microcontroller with 32-bit performance XC2700 family High performance CPU with 4-stage pipeline, 768-Kbyte on-chip program memory, 32-Kbyte on-chip program/data SRAM (PSRAM), 1024 bytes on-chip special function register area (C166 family compatible), programmable watchdog timer and oscillator watchdog, four capture/compare unit (CCU6), 16+ 8-channel 10-Bit A/D converter, two Full-CAN nodes, four serial interface channels, 66-MHz clock frequency, -40°C to 85°C, tape & reel
▼ SAK-XC2787X-200F100L ABStep	SP0008004404	PG-LQFP-144-13	16/32-bit single-chip microcontroller with 32-bit performance XC2700 family High performance CPU with 5-stage pipeline, 1,600-Kbyte on-chip program memory, 138-Kbyte on-chip program/data SRAM(PSRAM), 1024 bytes on-chip special function register area (C166 family compatible), programmable watchdog timer and oscillator watchdog, four capture/compare unit (CCU6), 16 + 8-channel 10-Bit A/D converter, two Full-CAN nodes, six serial interface channels, 100-MHz clock frequency, -40°C to 125°C, tape & reel
▼ SAK-XC2797X-200F100L ABStep	SP0008004406	PG-LQFP-144-13	as SAK-XC2787-200F100L, 16 + 14-channel 10-Bit A/D converter, tape & reel

SMD = Surface Mounted Device

Type	Ordering Code	Package	Description
<b>Microcontrollers, 32-bit</b>			
<b>TC11xxFamily TC1130 Series</b>			
SAF-TC1130-L150EB-G BB-Step	SP000744402	PG-LBGA-208-2	Industrial communication controller, TriCore™ CPU with 4-stage pipeline, floating point unit, memory management unit, 144-Kbyte on-chip SRAM, fast Ethernet controller with 10/100-Mbit/s, multifunctional general purpose timer unit with three 32-bit timer/counters, two capture and compare unit 6 for PWM signal generation, multiCAN module with four CAN nodes, 150-MHz clock frequency, -40°C to 85°C, tray
SAF-TC1130-L150EB-G BB-Step	SP000743584	PG-LBGA-208-2	as SAF-TC1130-L150EB-G, tape & reel

**TC11xx Family  
TC116x Series**

SAF-TC1166-192F80HL AB-Step	SP000861972	PG-LQFP-176-2	High performance TriCore™ CPU with 4-stage pipeline 1.5-Mbyte flash memory, 56-Kbyte local data memory (SRAM), 32-Kbyte data flash (4-Kbyte EEPROM emulation), 8-Kbyte instruction cache, 8-channel DMA controller, two high-speed synchronous serial channel (SSC), one 16-channel A/D converter unit with selectable 8-bit, 10-bit, or 12-bit supporting 32 input channels, on-chip debug support (OCDS level 1 and 2), multiCAN module with two CAN nodes, 80-MHz clock frequency, -40°C to 85°C, tray
SAF-TC1167-128F133HL AD-Step	SP000674708	PG-LQFP-176-5	High performance TriCore™ CPU with 4-stage pipeline 1-Mbyte flash memory, 24-Kbyte local data memory (SRAM), 64-Kbyte data flash (16-Kbyte EEPROM emulation), 16-Kbyte instruction cache, 8-channel DMA controller, two high-speed synchronous serial channel (SSC), one 16-channel A/D converter unit with selectable 8-bit, 10-bit, or 12-bit supporting 32 input channels, on-chip debug support (OCDS level 1 and 2), multiCAN module with two CAN nodes, 133-MHz clock frequency, -40°C to 85°C, tape & reel
SAK-TC1197-256F180E AC-Step	SP000627556	PG-BGA-416-10	High performance TriCore™ CPU with 4-stage pipeline 2-Mbyte flash memory, 40-Kbyte local data memory (SRAM), 64-Kbyte data flash (16-Kbyte EEPROM emulation), 16-Kbyte instruction cache, 16-channel DMA controller, two high-speed synchronous serial channel (SSC), one 16-channel A/D converter unit with selectable 8-bit, 10-bit, or 12-bit supporting 32 input channels, on-chip debug support (OCDS level 1 and 2), multiCAN module with four CAN nodes, 180-MHz clock frequency, -40°C to 125°C, tape & reel
SAK-TC1197-512F180E AC-Step	SP000602872	PG-BGA-416-10	as SAK-TC1197-256F180E, 4-Mbyte flash memory, tape & reel

SMD = Surface Mounted Device

# Microcontrollers

Type	Ordering Code	Package	Description
<b>Microcontrollers, 32-bit</b>			
<b>TC176x Family</b>			
▼ SAK-TC1736-128F80HL AC-Step	SP000366518	PG-LQFP-144-10	High performance TriCore™ CPU with 4-stage pipeline 1-Mbyte flash memory, 36-Kbyte local data memory (LDRAM), 32-Kbyte data flash (8-Kbyte EEPROM emulation), 8-Kbyte instruction cache, 8-channel DMA controller, two high-speed synchronous serial channel (SSC), 10-bit A/D conversion, on-chip debug support (OCDS level 1), multiCAN module with two CAN nodes, power management system, 80-MHz clock frequency, -40°C to 125°C, tray
SAK-TC1767-256F133HL AD-Step	SP000458056	PG-LQFP-176-5	High performance TriCore™ CPU with 4-stage pipeline 2-Mbyte embedded program flash, 64-Kbyte data flash, 24-Kbyte on-chip SRAM, one 32-channel analog-to-digital converter unit with 8-, 10- or 12-bit resolution, general purpose timer array module, two synchronous serial channels with programmable data length and shift direction, 2-channel fast analog-to-digital converter unit, OCDS level 1 and 2, multiCAN module with two CAN nodes, 133-MHz clock frequency, -40°C to 125°C, tape & reel
SAK-TC1767-256F80HL AD-Step	SP000442086	PG-LQFP-176-5	as SAK-TC1767-256F133HL, 80-MHz clock frequency, tape & reel

## TC179x Family

SAK-TC1796-256F150E BE-Step	SP000438972	PG-BGA-416-4	High performance TriCore™ CPU with 4-stage pipeline 2-Mbyte embedded program flash with ECC, 128-Kbyte data flash memory usable for EEPROM emulation, 136-Kbyte data memory, 16-Kbyte instruction cache, 16-channel DMA controller, two 16-channel A/D converter units with selectable 8-bit, 10-bit, or 12-bit resolution, on-chip debug support (OCDS level 1 and 2), multiCAN module with four CAN nodes, 150-MHz clock frequency, -40°C to 125°C, tray
SAK-TC1797-512F180E AC-Step	SP000478918	PG-BGA-416-10	High performance TriCore™ CPU with 4-stage pipeline 4-Mbyte embedded program flash with ECC, 64-Kbyte data flash memory usable for EEPROM emulation, 128-Kbyte data memory, 16-Kbyte instruction cache, 16-channel DMA controller, two 16-channel A/D converter units with selectable 8-bit, 10-bit, or 12-bit resolution, on-chip debug support (OCDS level 1 and 2), multiCAN module with four CAN nodes, 180-MHz clock frequency, -40°C to 125°C, tape & reel

SMD = Surface Mounted Device



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## Power Semiconductors

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Type	Ordering Code	Package	Data			
			$V_{DS}$	$R_{DS(on)max}$	$V_{GS(th)}$	$I_D$
			V	m $\Omega$	V	A

**Automotive N-Channel MOSFETs****30 V**

IPB180N03S4L-H	SP000555050	PG-TO263-7-3	30	0.95	1.0 ... 2.2	180
IPB180N03S4L-01	SP000555002	PG-TO263-7-3	30	1.05	1.0 ... 2.2	180
IPB22N03S4L-15	SP000275308	PG-TO263-3-2	30	1.5	1.0 ... 2.2	22
IPB80N03S4L-02	SP000273282	PG-TO263-3-2	30	2.3	1.0 ... 2.2	80
IPB80N03S4L-03	SP000274982	PG-TO263-3-2	30	3.3	1.0 ... 2.2	80
IPD30N03S4L-14	SP000275919	PG-TO252-3-11	30	1.4	1.0 ... 2.2	30
IPD90N03S4L-02	SP000273284	PG-TO252-3-11	30	2.2	1.0 ... 2.2	90
IPD90N03S4L-03	SP000274978	PG-TO252-3-11	30	3.0	1.0 ... 2.2	90
IPD70N03S4L-04	SP000274986	PG-TO252-3-11	30	4.3	1.0 ... 2.2	70
IPD50N03S4L-06	SP000415580	PG-TO252-3-11	30	5.5	1.2 ... 2.0	50
IPD50N03S2L-06	SP000254461	PG-TO252-3-11	30	6.4	1.2 ... 2.0	50
IPD30N03S2L-07	SP000254463	PG-TO252-3-11	30	6.7	1.2 ... 2.0	30
IPD50N03S2-07	SP000254462	PG-TO252-3-11	30	7.3	2.1 ... 4.0	50
IPD40N03S4L-08	SP000475916	PG-TO252-3-11	30	8.0	1.0 ... 2.2	40
IPD30N03S4L-09	SP000415578	PG-TO252-3-11	30	9.0	1.0 ... 2.2	30
IPD30N03S2L-10	SP000254465	PG-TO252-3-11	30	10	1.2 ... 2.0	30
IPD30N03S2L-20	SP000254466	PG-TO252-3-11	30	20	1.2 ... 2.0	30
IPI22N03S4L-15	SP000277016	PG-TO262-3-1	30	1.5	1.0 ... 2.2	22
IPI80N03S4L-03	SP000273285	PG-TO262-3-1	30	2.6	1.0 ... 2.2	80
IPI80N03S4L-04	SP000274983	PG-TO262-3-1	30	3.3	1.0 ... 2.2	80
IPP22N03S4L-15	SP000275290	PG-TO220-3-1	30	1.5	1.0 ... 2.2	22
IPP80N03S4L-03	SP000275328	PG-TO220-3-1	30	2.4	1.0 ... 2.2	80
IPP80N03S4L-04	SP000274981	PG-TO220-3-1	30	3.3	1.0 ... 2.2	80
■ SPB80N03S2-03 G	SP000200139	PG-TO263-3-2	30	3.4	1.0 ... 2.2	80
SPD50N03S2L-06 G	SP000443924	PG-TO252-3-11	30	6.4	1.0 ... 2.2	50
SPD50N03S2-07 G	SP000443920	PG-TO252-3-11	30	7.3	2.1 ... 4.0	50
▼ SPD30N03S2L-07 G	SP000443922	PG-TO252-3-11	30	6.7	1.2 ... 2.0	30
SPD30N03S2L-10 G	SP000443918	PG-TO252-3-11	30	10	1.0 ... 2.2	30
SPD30N03S2L-20 G	SP000443768	PG-TO252-3-11	30	20	1.0 ... 2.2	30
■ SPP80N03S2L-04	SP000013902	PG-TO220-3-1	30	4.3	1.2 ... 2.0	80
■ SPP80N03S2L-05	SP000013466	PG-TO220-3-1	30	5.0	1.2 ... 2.0	80

SMD = Surface Mounted Device

# Power Semiconductors

Type	Ordering Code	Package	Data			
			$V_{DS}$ V	$R_{DS(on)max}$ mΩ	$V_{GS(th)}$ V	$I_D$ A

## Automotive N-Channel MOSFETs

### 40 V

▼ IPB180N04S4-00	SP000646176	PG-TO263-7-3	40	0.98	2.0 ... 4.0	180
▼ IPB180N04S4-H0	SP000711248	PG-TO263-7-3	40	1.1	2.0 ... 4.0	180
▼ IPB180N04S4-H1	SP000705694	PG-TO263-7-3	40	1.3	2.0 ... 4.0	180
▼ IPB120N04S4-01	SP000705700	PG-TO263-7-3	40	1.5	2.0 ... 4.0	120
▼ IPB160N04S4-H1	SP000711252	PG-TO263-7-3	40	1.6	2.0 ... 4.0	160
IPB180N04S3-02	SP000382560	PG-TO263-7-3	40	1.6	2.1 ... 4.0	180
▼ IPB120N04S4-02	SP000764726	PG-TO263-7-3	40	1.8	2.0 ... 4.0	120
IPB120N04S3-02	SP000261216	PG-TO263-3-2	40	2.0	2.1 ... 4.0	120
▼ IPB90N04S4-02	SP000646182	PG-TO263-3-2	40	2.1	2.0 ... 4.0	90
▼ IPB100N04S4-H2	SP000711274	PG-TO263-7-3	40	2.4	2.0 ... 4.0	100
IPB160N04S3-H2	SP000254818	PG-TO263-7-3	40	2.4	2.1 ... 4.0	160
IPB160N04S2L-03	SP000218153	PG-TO263-7-3	40	2.7	1.2 ... 2.0	160
IPB80N04S3-03	SP000260848	PG-TO263-3-2	40	2.8	2.1 ... 4.0	80
IPB160N04S2-03	SP000385420	PG-TO263-7-3	40	2.9	2.1 ... 4.0	160
IPB100N04S3-03	SP000260847	PG-TO263-3-2	40	3.0	2.1 ... 4.0	100
IPB80N04S2L-03	SP000220158	PG-TO263-3-2	40	3.1	1.2 ... 2.0	80
IPB100N04S2L-03	SP000219065	PG-TO263-3-2	40	3.3	1.2 ... 4.0	100
▼ IPB80N04S4-03	SP000671628	PG-TO263-3-2	40	3.3	1.2 ... 4.0	80
IPB80N04S2-04	SP000218154	PG-TO263-3-2	40	3.4	2.1 ... 4.0	80
IPB100N04S2-04	SP000219061	PG-TO263-3-2	40	3.6	2.1 ... 4.0	100
IPB80N04S3-04	SP000261217	PG-TO263-3-2	40	4.0	2.1 ... 4.0	80
IPB80N04S2-H4	SP000218165	PG-TO263-3-2	40	4.0	2.1 ... 4.0	80
▼ IPB80N04S4L-04	SP000646180	PG-TO263-3-2	40	4.0	1.2 ... 2.2	80
▼ IPB80N04S4-04	SP000646178	PG-TO263-3-2	40	4.2	2.0 ... 4.0	80
IPB80N04S3-H4	SP000415564	PG-TO263-3-2	40	4.5	2.1 ... 4.0	80
IPB80N04S3-06	SP000254822	PG-TO263-3-2	40	6.0	2.1 ... 4.0	80
▼ IPB70N04S4-06	SP000711476	PG-TO263-3-2	40	6.2	2.0 ... 4.0	70
IPB70N04S3-07	SP000279556	PG-TO263-3-2	40	6.8	2.1 ... 4.0	70
▼ IPB45N04S4-08	SP000711444	PG-TO263-3-2	40	7.6	2.0 ... 4.0	45
▼ IPD100N04S4-02	SP000646184	PG-TO252-3-1	40	2.0	2.0 ... 4.0	100
▼ IPD90N04S4-02	SP000673890	PG-TO252-3-1	40	2.4	2.0 ... 4.0	90
▼ IPD90N04S4-03	SP000671630	PG-TO252-3-1	40	3.2	2.0 ... 4.0	90
IPD90N04S3-04	SP000465878	PG-TO252-3-1	40	3.8	2.1 ... 4.0	90
▼ IPD90N04S4L-04	SP000646188	PG-TO252-3-1	40	3.8	1.2 ... 2.2	90
▼ IPD90N04S4-04	SP000646186	PG-TO252-3-1	40	4.1	2.0 ... 4.0	90
IPD90N04S3-H4	SP000415584	PG-TO252-3-1	40	4.3	2.1 ... 4.0	90
▼ IPD90N04S4-05	SP000711460	PG-TO252-3-1	40	5.2	2.0 ... 4.0	86
▼ IPD75N04S4-06	SP000711472	PG-TO252-3-1	40	5.9	2.0 ... 4.0	75
IPD80N04S3-06	SP000465874	PG-TO252-3-1	40	6.0	2.1 ... 4.0	80
IPD70N04S3-07	SP000261221	PG-TO252-3-1	40	6.8	2.1 ... 4.0	70
▼ IPD50N04S4L-08	SP000711456	PG-TO252-3-1	40	7.3	1.2 ... 2.2	50
▼ IPD50N04S4-08	SP000711450	PG-TO252-3-1	40	7.9	2.0 ... 4.0	50
IPD50N04S3-08	SP000470240	PG-TO252-3-1	40	8.0	2.1 ... 4.0	50
▼ IPD50N04S3-09	SP000415582	PG-TO252-3-1	40	9.0	2.1 ... 4.0	50
▼ IPD50N04S4-10	SP000711466	PG-TO252-3-1	40	9.3	2.0 ... 4.0	50
▼ IPG20N04S4L-07	SP000705484	PG-TDSON-8-4	40	2 x 7.2	1.2 ... 2.2	20
▼ IPG20N04S4L-08	SP000705576	PG-TDSON-8-4	40	2 x 8.2	1.2 ... 2.2	20
▼ IPG20N04S4-08	SP000705582	PG-TDSON-8-4	40	2 x 7.6	2.0 ... 4.0	20

SMD = Surface Mounted Device

Type	Ordering Code	Package	Data			
			$V_{DS}$ V	$R_{DS(on)max}$ mΩ	$V_{GS(th)}$ V	$I_D$ A

**Automotive N-Channel MOSFETs****40 V**  
(cont'd)

▼ IPG20N04S4-09	SP000705570	PG-TDSON-8-4	40	2 x 8.6	2.0 ... 4.0	20
▼ IPG20N04S4L-11	SP000705564	PG-TDSON-8-4	40	2 x 11.6	1.2 ... 2.2	20
▼ IPG20N04S4-12	SP000705560	PG-TDSON-8-4	40	2 x 12.2	2.0 ... 4.0	20
▼ IPI120N04S4-01	SP000705722	PG-TO262-3-1	40	1.5	2.0 ... 4.0	120
▼ IPI120N04S4-02	SP000764742	PG-TO262-3-1	40	1.8	2.0 ... 4.0	120
▼ IPI90N04S4-04	SP000646194	PG-TO262-3-1	40	2.1	2.0 ... 4.0	90
IPI120N04S3-02	SP000261225	PG-TO262-3-1	40	2.3	2.1 ... 4.0	120
▼ IPI100N04S4-H2	SP000711282	PG-TO262-3-1	40	2.4	2.0 ... 4.0	100
▼ IPI100N04S3-03	SP000465798	PG-TO262-3-1	40	2.5	2.1 ... 4.0	100
IPI80N04S3-03	SP000261238	PG-TO262-3-1	40	3.0	2.1 ... 4.0	80
IPI100N04S3-03	SP000261223	PG-TO262-3-1	40	3.3	2.1 ... 4.0	100
▼ IPI80N04S4-03	SP000671634	PG-TO262-3-1	40	3.3	2.0 ... 4.0	80
IPI80N04S2-04	SP000219058	PG-TO262-3-1	40	3.7	2.1 ... 4.0	80
IPI80N04S2-H4	SP000218171	PG-TO262-3-1	40	4.0	2.1 ... 4.0	80
▼ IPI80N04S4L-04	SP000646192	PG-TO262-3-1	40	4.0	1.2 ... 2.0	80
▼ IPI80N04S4-04	SP000646190	PG-TO262-3-1	40	4.2	2.0 ... 4.0	80
IPI80N04S3-04	SP000261226	PG-TO262-3-1	40	4.3	2.1 ... 4.0	80
IPI80N04S3-H4	SP000415630	PG-TO262-3-1	40	4.8	2.1 ... 4.0	80
▼ IPI70N04S4-06	SP000711484	PG-TO262-3-1	40	6.2	2.0 ... 4.0	70
IPI80N04S3-06	SP000261237	PG-TO262-3-1	40	6.3	2.1 ... 4.0	80
IPI70N04S3-03	SP000279551	PG-TO262-3-1	40	6.8	2.1 ... 4.0	70
▼ IPP120N04S4-01	SP000705704	PG-TO220-3-1	40	1.5	2.0 ... 4.0	120
▼ IPP120N04S4-02	SP000764734	PG-TO220-3-1	40	1.8	2.0 ... 4.0	120
▼ IPP90N04S4-02	SP000646200	PG-TO220-3-1	40	2.1	2.0 ... 4.0	90
IPP120N04S3-02	SP000261228	PG-TO220-3-1	40	2.3	2.1 ... 4.0	120
▼ IPP100N04S4-H2	SP000711278	PG-TO220-3-1	40	2.4	2.0 ... 4.0	100
IPP80N04S3-03	SP000261229	PG-TO220-3-1	40	3.0	2.1 ... 4.0	80
IPP80N04S2L-03	SP000219063	PG-TO220-3-1	40	3.3	1.2 ... 2.0	80
IPP100N04S2L-03	SP000219062	PG-TO220-3-1	40	3.3	1.2 ... 2.0	100
IPP100N04S2-04	SP000219056	PG-TO220-3-1	40	3.3	2.1 ... 4.0	100
IPP100N04S3-03	SP000261227	PG-TO220-3-1	40	3.3	2.1 ... 4.0	100
▼ IPP80N04S4-03	SP000671756	PG-TO220-3-1	40	3.3	2.0 ... 4.0	80
IPP80N04S2-04	SP000219054	PG-TO220-3-1	40	3.4	2.1 ... 4.0	80
IPP80N04S2-H4	SP000218169	PG-TO220-3-1	40	4.0	2.1 ... 4.0	80
▼ IPP80N04S4L-04	SP000646198	PG-TO220-3-1	40	4.0	1.2 ... 2.0	80
▼ IPP80N04S4-04	SP000646196	PG-TO220-3-1	40	4.2	2.0 ... 4.0	80
IPP80N04S3-04	SP000261230	PG-TO220-3-1	40	4.3	2.1 ... 4.0	80
IPP80N04S3-H4	SP000415702	PG-TO220-3-1	40	4.3	2.1 ... 4.0	80
▼ IPP70N04S4-06	SP000279559	PG-TO220-3-1	40	6.2	2.0 ... 4.0	70
IPP80N04S3-06	SP000261233	PG-TO220-3-1	40	6.3	2.1 ... 4.0	80
IPP70N04S3-03	SP000279559	PG-TO220-3-1	40	6.8	2.1 ... 4.0	70
■ SPB160N04S2L-03	SP000014639	P-TO263-3-2	40	2.7	1.2 ... 2.0	160
■ SPB160N04S2-03	SP000014263	P-TO263-7-3	40	2.9	2.1 ... 4.0	160

SMD = Surface Mounted Device

# Power Semiconductors

Type	Ordering Code	Package	Data			
			$V_{DS}$ V	$R_{DS(on)max}$ mΩ	$V_{GS(th)}$ V	$I_D$ A

## Automotive N-Channel MOSFETs

### 55 V

BSO604NS2	SP000396268	PG-DSO-8-5	55	35	1.2 ... 2.0	5.0
BSP603S2L	SP000431792	SOT223	55	33	1.2 ... 2.0	5.2
IPB100N06S2L-05	SP000219003	PG-TO263-3-2	55	4.4	1.2 ... 2.0	100
IPB80N06S2L-05	SP000219004	PG-TO263-3-2	55	4.5	1.2 ... 2.0	80
IPB100N06S2-05	SP000218874	PG-TO263-3-2	55	4.7	2.1 ... 4.0	100
IPB80N06S2-05	SP000218877	PG-TO263-3-2	55	4.8	2.1 ... 4.0	80
IPB80N06S2L-H5	SP000219068	PG-TO263-3-2	55	5.0	1.2 ... 2.0	80
IPB80N06S2-H5	SP000377048	PG-TO263-3-2	55	5.5	2.1 ... 4.0	80
IPB80N06S2L-06	SP000218163	PG-TO263-3-2	55	6.3	1.2 ... 2.0	80
IPB80N06S2-07	SP000265871	PG-TO263-3-2	55	6.6	2.1 ... 4.0	80
IPB80N06S2L-07	SP000218867	PG-TO263-3-2	55	7.0	1.2 ... 2.0	80
IPB80N06S2-08	SP000218830	PG-TO263-3-2	55	8.0	2.1 ... 4.0	80
IPB80N06S2L-09	SP000218743	PG-TO263-3-2	55	8.5	1.2 ... 2.0	80
IPB80N06S2-09	SP000218741	PG-TO263-3-2	55	9.1	2.1 ... 4.0	80
IPB80N06S2L-11	SP000218177	PG-TO263-3-2	55	11	1.2 ... 2.0	80
IPB77N06S2-12	SP000218173	PG-TO263-3-2	55	12	2.1 ... 4.0	77
IPD30N06S2L-13	SP000262072	PG-TO252-3-11	55	12.7	1.2 ... 2.0	30
IPD50N06S2L-13	SP000252172	PG-TO252-3-11	55	13	1.2 ... 2.0	50
IPD50N06S2-14	SP000252171	PG-TO252-3-11	55	14.4	2.1 ... 4.0	50
IPD30N06S2-15	SP000252160	PG-TO252-3-11	55	14.7	2.1 ... 4.0	30
IPD30N06S2-23	SP000252166	PG-TO252-3-11	55	23	2.1 ... 4.0	30
IPD30N06S2L-23	SP000262073	PG-TO252-3-11	55	23	1.2 ... 2.0	30
IPD26N06S2L-35	SP000252165	PG-TO252-3-11	55	35	1.2 ... 2.0	26
IPD25N06S2-40	SP000252164	PG-TO252-3-11	55	40	2.1 ... 4.0	25
IPD14N06S2-80	SP000252161	PG-TO252-3-11	55	80	2.1 ... 4.0	14
▼ IPG20N06S4-15	SP000705490	PG-TDSON-8-4	60	2 x 15.5	2.0 ... 4.0	20
■ IPG20N06S3L-23	SP000396304	PG-TDSON-8-4	55	2 x 23	1.2 ... 2.2	20
▼ IPG20N06S2L-35	SP000613718	PG-TDSON-8-4	55	2 x 35	1.2 ... 2.0	20
■ IPG20N06S3L-35	SP000396306	PG-TDSON-8-4	55	2 x 35	1.2 ... 2.2	20
■ IPG15N06S3L-35	SP000396302	PG-TDSON-8-4	55	2 x 45	1.2 ... 2.2	15
▼ IPG20N06S2L-50	SP000613728	PG-TDSON-8-4	55	2 x 50	1.2 ... 2.0	20
▼ IPG20N06S2L-65	SP000613722	PG-TDSON-8-4	55	2 x 65	1.2 ... 2.0	20
IPI80N06S2L-05	SP000219002	PG-TO262-3-1	55	4.8	1.2 ... 2.0	80
IPI80N06S2-07	SP000218817	PG-TO262-3-1	55	6.6	2.1 ... 4.0	80
IPI80N06S2-08	SP000218828	PG-TO262-3-1	55	8.0	2.1 ... 4.0	80
IPI80N06S2L-11	SP000218176	PG-TO262-3-1	55	11	1.2 ... 2.0	80
IPP100N06S2-05	SP000218872	PG-TO220-3-1	55	4.7	2.1 ... 4.0	100
IPP100N06S2L-05	SP000218879	PG-TO220-3-1	55	4.7	1.2 ... 2.0	100
IPP80N06S2L-05	SP000219000	PG-TO220-3-1	55	4.8	1.2 ... 2.0	80
IPP80N06S2-05	SP000218873	PG-TO220-3-1	55	5.1	2.1 ... 4.0	80
IPP80N06S2L-H5	SP000219067	PG-TO220-3-1	55	5.3	1.2 ... 2.0	80

SMD = Surface Mounted Device

Type	Ordering Code	Package	Data			
			$V_{DS}$ V	$R_{DS(on)max}$ mΩ	$V_{GS(th)}$ V	$I_D$ A

**Automotive N-Channel MOSFETs****55 V**  
(cont'd)

IPP80N06S2-H5	SP000218155	PG-TO220-3-1	55	5.5	2.1 ... 4.0	80
IPP80N06S2-07	SP000781442	PG-TO220-3-1	55	6.3	2.1 ... 4.0	80
IPP80N06S2L-06	SP000218824	PG-TO220-3-1	55	6.3	1.2 ... 2.0	80
IPP80N06S2L-07	SP000218831	PG-TO220-3-1	55	7.0	1.2 ... 2.0	80
IPP80N06S2-08	SP000218826	PG-TO220-3-1	55	8.0	2.1 ... 4.0	80
IPP80N06S2-09	SP000218740	PG-TO220-3-1	55	8.5	2.1 ... 4.0	80
IPP80N06S2L-09	SP000218742	PG-TO220-3-1	55	9.1	1.2 ... 2.0	80
IPP80N06S2L-11	SP000218175	PG-TO220-3-1	55	11	1.2 ... 2.0	80
IPP77N06S2-12	SP000218172	PG-TO220-3-1	55	12	2.1 ... 4.0	77
SPB80N06S-08	SP000084808	PG-TO263-3-2	55	7.7	2.1 ... 4.0	80
■ SPI80N06S-08	SP000054055	P-TO262-3-1	55	7.7	2.1 ... 4.0	80
SPP80N06S-08	SP000084810	PG-TO220-3-1	55	7.7	2.1 ... 4.0	80

**60V**

IPB180N06S4-H1	SP000415562	PG-TO263-7-3	60	1.7	2.0 ... 4.0	180
IPB120N06S4-H1	SP000396274	PG-TO263-3-2	60	2.1	2.0 ... 4.0	120
IPB120N06S4-02	SP000415560	PG-TO263-3-2	60	2.4	2.0 ... 4.0	120
IPB120N06S4-03	SP000415558	PG-TO263-3-2	60	2.8	2.0 ... 4.0	120
IPB90N06S4L-03	SP000415574	PG-TO263-3-2	60	3.3	1.2 ... 2.2	90
IPB90N06S4-04	SP000379632	PG-TO263-3-2	60	3.7	2.0 ... 4.0	90
IPB80N06S4L-05	SP000415570	PG-TO263-3-2	60	4.8	1.2 ... 2.2	80
IPB80N06S4-04	SP000415566	PG-TO263-3-2	60	5.4	2.0 ... 4.0	80
IPB80N06S4L-07	SP000415572	PG-TO263-3-2	60	6.4	1.2 ... 2.2	80
IPB80N06S4-07	SP000415568	PG-TO263-3-2	60	7.1	2.0 ... 4.0	80
IPB45N06S4L-08	SP000374316	PG-TO263-3-2	60	8.2	1.2 ... 2.2	45
IPB45N06S4-09	SP000374315	PG-TO263-3-2	60	9.1	2.0 ... 4.0	45
▼ IPD100N06S4-03	SP000415576	PG-TO252-3-11	60	3.5	2.0 ... 4.0	100
IPD90N06S4L-03	SP000374326	PG-TO252-3-11	60	3.5	1.2 ... 2.2	90
IPD90N06S4-04	SP000374323	PG-TO252-3-11	60	3.8	2.0 ... 4.0	90
IPD90N06S4L-05	SP000415588	PG-TO252-3-11	60	4.6	1.2 ... 2.2	90
IPD90N06S4-05	SP000481510	PG-TO252-3-11	60	5.1	2.0 ... 4.0	90
IPD90N06S4L-06	SP000415594	PG-TO252-3-11	60	6.1	1.2 ... 2.2	90
IPD90N06S4-07	SP000415586	PG-TO252-3-11	60	6.9	2.0 ... 4.0	90
IPD50N06S4L-08	SP000374322	PG-TO252-3-11	60	7.9	1.2 ... 2.2	50
IPD50N06S4-09	SP000374321	PG-TO252-3-11	60	9.0	2.0 ... 4.0	50
IPD50N06S4L-12	SP000476422	PG-TO252-3-11	60	12	1.2 ... 2.2	50
IPD30N06S4L-23	SP000374320	PG-TO252-3-11	60	23	1.2 ... 2.2	30
IPD25N06S4L-30	SP000481508	PG-TO252-3-11	60	30	1.2 ... 2.2	25
IPI120N06S4-H1	SP000415620	PG-TO262-3-1	60	2.4	2.0 ... 4.0	120
IPI120N06S4-02	SP000415622	PG-TO262-3-1	60	2.8	2.0 ... 4.0	120
IPI120N06S4-03	SP000396308	PG-TO262-3-1	60	3.1	2.0 ... 4.0	120
IPI90N06S4L-04	SP000415696	PG-TO262-3-1	60	3.7	1.2 ... 2.2	90
IPI90N06S4-04	SP000379633	PG-TO262-3-1	60	4.0	2.0 ... 4.0	90
IPI80N06S4L-05	SP000415692	PG-TO262-3-1	60	5.2	1.2 ... 2.2	80
IPI80N06S4-05	SP000415632	PG-TO262-3-1	60	5.7	2.0 ... 4.0	80
IPI80N06S4L-07	SP000415694	PG-TO262-3-1	60	6.7	1.2 ... 2.2	80

SMD = Surface Mounted Device

# Power Semiconductors

Type	Ordering Code	Package	Data			
			$V_{DS}$	$R_{DS(on)max}$	$V_{GS(th)}$	$I_D$
			V	mΩ	V	A

## Automotive N-Channel MOSFETs

### 60 V (cont'd)

IPI80N06S4-07	SP000415690	PG-TO262-3-1	60	7.4	2.0 ... 4.0	80
IPI45N06S4L-08	SP000374333	PG-TO262-3-1	60	8.5	1.2 ... 2.2	45
IPI45N06S4-09	SP000374332	PG-TO262-3-1	60	9.4	2.0 ... 4.0	45
▼ IPG20N06S4L-11	SP000705550	PG-TDSON-8-4	60	2 x 11.2	1.2 ... 2.2	20
▼ IPG20N06S4L-14	SP000705540	PG-TDSON-8-4	60	2 x 13.7	1.2 ... 2.2	20
▼ IPG20N06S4-15	SP000705490	PG-TDSON-8-4	60	2 x 15.5	2.0 ... 4.0	20
▼ IPG20N06S4L-26	SP000705588	PG-TDSON-8-4	60	2 x 26	1.2 ... 2.2	20
IPP120N06S4-H1	SP000415698	PG-TO220-3-1	60	2.4	2.0 ... 4.0	120
IPP120N06S4-02	SP000415700	PG-TO220-3-1	60	2.8	2.0 ... 4.0	120
IPP120N06S4-03	SP000396380	PG-TO220-3-1	60	3.1	2.0 ... 4.0	120
IPP90N06S4L-04	SP000415712	PG-TO220-3-1	60	3.7	1.2 ... 2.2	90
IPP90N06S4-04	SP000379634	PG-TO220-3-1	60	4.0	2.0 ... 4.0	90
IPP80N06S4L-05	SP000415708	PG-TO220-3-1	60	5.2	1.2 ... 2.2	80
IPP80N06S4-05	SP000415704	PG-TO220-3-1	60	5.7	2.0 ... 4.0	80
IPP80N06S4L-07	SP000415710	PG-TO220-3-1	60	6.7	1.2 ... 2.2	80
IPP80N06S4-07	SP000415706	PG-TO220-3-1	60	7.4	2.0 ... 4.0	80
IPP45N06S4L-08	SP000374340	PG-TO220-3-1	60	8.5	1.2 ... 2.2	45
IPP45N06S4-09	SP000374339	PG-TO220-3-1	60	9.4	2.0 ... 4.0	45

### 75 V

IPB100N08S2L-07	SP000219053	PG-TO263-3-2	75	6.5	1.2 ... 2.0	100
IPB100N08S2-07	SP000219044	PG-TO263-3-2	75	6.8	2.1 ... 4.0	100
IPB80N08S2L-07	SP000219051	PG-TO263-3-2	75	6.8	1.2 ... 2.0	80
IPB80N08S2-07	SP000219048	PG-TO263-3-2	75	7.1	2.1 ... 4.0	80
IPD30N08S2-22	SP000252169	PG-TO252-3-11	75	21.5	2.1 ... 4.0	30
IPD30N08S2L-21	SP000252170	PG-TO252-3-11	75	25	1.2 ... 2.0	30
IPD22N08S2L-50	SP000252163	PG-TO252-3-11	75	50	1.2 ... 2.0	22
IPI100N08S2-07	SP000219041	PG-TO262-3-1	75	7.0	2.1 ... 4.0	100
IPI80N08S2-07	SP000219043	PG-TO262-3-1	75	7.0	2.1 ... 4.0	80
IPP100N08S2L-07	SP000219052	PG-TO220-3-1	75	6.8	1.2 ... 2.0	100
IPP100N08S2-07	SP000219005	PG-TO220-3-1	75	7.1	2.1 ... 4.0	100
IPP80N08S2L-07	SP000219050	PG-TO220-3-1	75	7.1	1.2 ... 2.0	80
IPP80N08S2-07	SP000219040	PG-TO220-3-1	75	7.4	2.1 ... 4.0	80

SMD = Surface Mounted Device



Type	Ordering Code	Package	Data			
			$V_{DS}$ V	$R_{DS(on)max}$ mΩ	$V_{GS(th)}$ V	$I_D$ A

**Automotive N-Channel MOSFETs****100 V**

IPB100N10S3-05	SP000261243	PG-TO263-3-2	100	4.8	2.0 ... 4.0	100
IPB70N10S3-05	SP000261246	PG-TO263-3-2	100	11.3	2.0 ... 4.0	70
IPB70N10S3L-12	SP000379631	PG-TO263-3-2	100	11.8	2.0 ... 4.0	70
IPB50N10S3L-16	SP000386183	PG-TO263-3-2	100	15.4	1.2 ... 2.4	50
IPB70N10SL-16	SP000225700	PG-TO263-3-2	100	16	1.2 ... 2.0	70
IPB47N10SL-26	SP000225701	PG-TO263-3-2	100	26	1.2 ... 2.0	47
IPB47N10S-33	SP000225702	PG-TO263-3-2	100	33	2.1 ... 4.0	47
IPD70N10S3-05	SP000427248	PG-TO252-3-11	100	11.3	2.0 ... 4.0	70
IPD70N10S3L-12	SP000261250	PG-TO252-3-11	100	11.5	1.2 ... 2.4	70
IPD50N10S3L-16	SP000386185	PG-TO252-3-11	100	15.4	1.2 ... 2.4	50
IPD30N10S3L-34	SP000261248	PG-TO252-3-11	100	31	1.2 ... 2.4	30
IPD35N10S3L-26	SP000386184	PG-TO252-3-11	100	26	1.2 ... 2.4	35
IPI100N10S3-05	SP000407128	PG-TO262-3-1	100	4.8	2.0 ... 4.0	100
IPI70N10S3-05	SP000407124	PG-TO262-3-1	100	11.3	2.0 ... 4.0	70
IPI70N10S3L-12	SP000427250	PG-TO262-3-1	100	12.1	2.0 ... 4.0	70
IPI50N10S3L-16	SP000407120	PG-TO262-3-1	100	15.4	1.2 ... 2.4	50
IPI70N10SL-16	SP000225705	PG-TO262-3-1	100	16	1.2 ... 2.0	70
IPI47N10SL-26	SP000225704	PG-TO262-3-1	100	26	1.2 ... 2.0	47
IPI47N10S-33	SP000225703	PG-TO262-3-1	100	33	2.1 ... 4.0	47
IPP100N10S3-05	SP000407126	PG-TO220-3-1	100	4.8	2.0 ... 4.0	100
IPP70N10S3-12	SP000407122	PG-TO220-3-1	100	11.3	2.0 ... 4.0	70
IPP70N10S3L-12	SP000427252	PG-TO220-3-1	100	12.1	2.0 ... 4.0	70
IPP50N10S3L-16	SP000407118	PG-TO220-3-1	100	15.4	1.2 ... 2.4	50
IPP70N10SL-16	SP000225708	PG-TO220-3-1	100	16	1.2 ... 2.0	70
IPP47N10SL-26	SP000225707	PG-TO220-3-1	100	26	1.2 ... 2.0	47
IPP47N10S-33	SP000225706	PG-TO220-3-1	100	33	2.1 ... 4.0	47

**600 V**

IPB60R099CPA	SP000315443	PG-TO263-3-2	600	105	2.5 ... 3.5	31
▼ IPB60R199CPA	SP000539966	PG-TO263-3-2	600	199	2.5 ... 3.5	16
▼ IPB60R299CPA	SP000539970	PG-TO263-3-2	600	299	2.5 ... 3.5	11
IPI60R099CPA	SP000315454	PG-TO262-3-1	600	105	2.5 ... 3.5	31
IPP60R099CPA	SP000315418	PG-TO220-3-1	600	105	2.5 ... 3.5	31
▼ IPW60R045CPA	SP000539772	PG-TO247-3-41	600	45	2.5 ... 3.5	60

SMD = Surface Mounted Device

# Power Semiconductors

Type	Ordering Code	Package	Data			
			$V_{DS}$	$R_{DS(on)max}$	$V_{GS(th)}$	$I_D$
			V	mΩ	V	A

## Automotive P-Channel MOSFETs

### 40 V

▼ IPD90P04P4-05	SP000671164	PG-TO252-3-11	-40	4.7	-4.0 ... -2.0	-90
▼ IPD70P04P4-09	SP000709326	PG-TO252-3-11	-40	8.9	-4.0 ... -2.0	-73

### 30 V

IPB80P03P4L-04	SP000396284	PG-TO263-3-2	-30	4.1	-2.0 ... -1.0	-80
IPB80P03P4-05	SP000396282	PG-TO263-3-2	-30	4.7	-4.0 ... -2.0	-80
IPB80P03P4L-07	SP000396288	PG-TO263-3-2	-30	6.9	-2.0 ... -1.0	-80
IPB45P03P4L-11	SP000396276	PG-TO263-3-2	-30	10.8	-2.0 ... -1.0	-45
IPD90P03P4L-04	SP000396300	PG-TO252-3-11	-30	4.1	-2.0 ... -1.0	-90
IPD90P03P4-04	SP000396298	PG-TO252-3-11	-30	4.5	-4.0 ... -2.0	-90
IPD80P03P4L-07	SP000396296	PG-TO252-3-11	-30	6.9	-2.0 ... -1.0	-80
IPD50P03P4L-11	SP000396290	PG-TO252-3-11	-30	10.5	-2.0 ... -1.0	-50
▼ IPI80P03P4-04	SP000396318	PG-TO262-3-1	-30	4.1	-2.0 ... -1.0	-80
▼ IPI80P03P4-07	SP000396320	PG-TO262-3-1	-30	6.9	-2.0 ... -1.0	-80
▼ IPP80P03P4-04	SP000396390	PG-TO220-3-1	-30	4.1	-2.0 ... -1.0	-80
▼ IPP80P03P4-07	SP000396392	PG-TO220-3-1	-30	6.9	-2.0 ... -1.0	-80
IPP45P03P4L-11	SP000396382	PG-TO220-3-1	-30	10.8	-2.0 ... -1.0	-45

## Automotive P/N-Channel MOSFETs

### 30 V/55 V

BTS7904B	SP000415554	PG-TO263-5-1	-30	12.7	-2.1 ... -1.0	-40
			55	11.7	1.2 ... 2.2	40
BTS7904S	SP000415556	PG-TO220-5-13	-30	12.4	-2.1 ... -1.0	-40
			55	11.4	1.2 ... 2.2	40

SMD = Surface Mounted Device

Type	Ordering Code	Package	Data			
			$V_{DS}$ V	$R_{DS(on)max}$ mΩ	$V_{GS(th)}$ V	$I_D$ A

**N-Channel MOSFETs****20 V**

BSD214SN	SP000440882	SOT363	20	140	0.7 ... 1.2	1.5
BSD816SN	SP000464868	SOT363	20	160	0.3 ... 0.95	1.4
BSD235N	SP000442458	SOT363 dual	20	350	0.7 ... 1.2	0.95
BSD840N	SP000464874	SOT363 dual	20	400	0.7 ... 1.2	0.95
BSC019N02KS G	SP000307376	SuperSO8	20	1.95	0.3 ... 0.75	0.88
BSC026N02KS G	SP000379664	SuperSO8	20	2.6	0.7 ... 1.2	100
BSC046N02KS G	SP000379666	SuperSO8	20	4.6	0.7 ... 1.2	80
BSR202N	SP000257784	SC59	20	21	0.7 ... 1.2	3.1
BSR802N	SP000442484	SC59	20	23	0.3 ... 0.75	3.7
BSL202SN	SP000257782	TSOP6	20	22	0.7 ... 1.2	7.5
BSL205N	SP000442386	TSOP6 dual	20	50	0.6 ... 1.2	2.5
BSL207N	SP000442426	TSOP6 dual	20	70	0.7 ... 1.2	2.1
BSL214N	SP000442430	TSOP6 dual	20	140	0.7 ... 1.2	1.5
BSL802SN	SP000442478	TSOP6 dual	20	22	0.3 ... 0.75	7.5
BSO330N02K G	SP000380284	SO-8	20	30	0.7 ... 1.2	5.4
BSS205N	SP000442384	SOT23	20	50	0.7 ... 1.2	2.5
BSS806N	SP000464848	SOT23	20	57	0.3 ... 0.75	2.3
BSS214N	SP000440878	SOT23	20	140	0.7 ... 1.2	1.5
BSS816NW	SP000464852	SOT23	20	160	0.3 ... 0.75	1.4
BSS214NW	SP000440880	SOT323	20	140	0.7 ... 1.2	1.5

**25 V**

▼ BSB012NE2LX	SP000756344	CanPAK™ M-size	25	1.2	1.0 ... 2.2	180
▼ BSC010NE2LS	SP000776124	SuperSO8	25	1.0	1.0 ... 2.2	100
▼ BSC018NE2LS	SP000756336	SuperSO8	25	1.8	1.0 ... 2.2	100
▼ BSC024NE2LS	SP000756342	SuperSO8	25	2.4	1.0 ... 2.2	100
▼ BSC050NE2LS	SP000756340	SuperSO8	25	5.0	1.0 ... 2.2	58
▼ BSZ018NE2LS	SP000756338	S308	25	1.8	1.0 ... 2.2	100

**30 V**

BSB012N03LX3 G	SP000597846	CanPAK™ M-size	30	1.2	1.0 ... 2.2	180
BSB017N03LX3 G	SP000604468	CanPAK™ M-size	30	1.7	1.0 ... 2.2	147
BSF024N03LT3 G	SP000616988	CanPAK™ S-size	30	2.4	1.0 ... 2.2	106
■ BSF045N03LQ3 G	SP000597842	CanPAK™ S-size	30	4.5	1.0 ... 2.2	63
■ BSF045N03MQ3 G	SP000597844	CanPAK™ S-size	30	4.5	1.0 ... 2.2	63
BSF050N03LQ3 G	SP000604522	CanPAK™ S-size	30	5.0	1.2 ... 2.2	60
▼ BSC011N03LS	SP000799082	SuperSO8	30	1.1	1.0 ... 2.2	100
BSC014N03LS G	SP000394677	SuperSO8	30	1.4	1.2 ... 2.0	100
BSC016N03LS G	SP000237663	SuperSO8	30	1.6	1.0 ... 2.2	100
▼ BSC0901NS	SP000800248	SuperSO8	30	1.9	1.0 ... 2.2	100
BSC020N03LS G	SP000237662	SuperSO8	30	2.0	1.0 ... 2.2	100
BSC025N03LS G	SP000269781	SuperSO8	30	2.5	1.0 ... 2.2	100
▼ BSC0902NS	SP000800246	SuperSO8	30	2.6	1.0 ... 2.2	100
BSC030N03LS G	SP000237661	SuperSO8	30	3.0	1.0 ... 2.2	100
BSC034N03LS G	SP000475948	SuperSO8	30	3.4	1.0 ... 2.2	100
BSC037N03MSC G	SP000527434	SuperSO8	30	3.7	1.0 ... 2.2	100
BSC042N03LS G	SP000302864	SuperSO8	30	4.2	1.0 ... 2.2	93

SMD = Surface Mounted Device

# Power Semiconductors

Type	Ordering Code	Package	Data			
			$V_{DS}$	$R_{DS(on)max}$	$V_{GS(th)}$	$I_D$
			V	mΩ	V	A

## N-Channel MOSFETs

### 30 V

(cont'd)

BSC043N03MSC G	SP000509600	SuperSO8	30	4.3	1.0 ... 2.2	87
BSC049N03MSC G	SP000509598	SuperSO8	30	4.9	1.0 ... 2.2	77
BSC050N03LS G	SP000269785	SuperSO8	30	5.0	1.0 ... 2.2	79
BSC057N03LS G	SP000275113	SuperSO8	30	5.7	1.0 ... 2.2	71
BSC072N03LD G	SP000359607	SuperSO8 (dual)	30	7.2	1.0 ... 2.2	20
BSC079N03LSC G	SP000527424	SuperSO8	30	7.9	1.0 ... 2.2	50
▼ BSC0908NS	SP000847024	SuperSO8	30	8.0	1.0 ... 2.2	49
BSC080N03LS G	SP000275114	SuperSO8	30	8.0	1.0 ... 2.2	52
BSC090N03LS G	SP000275115	SuperSO8	30	9.0	1.0 ... 2.2	47
BSC091N03MSC G	SP000527416	SuperSO8	30	9.1	1.0 ... 2.2	44
▼ BSC0909NS	SP000832576	SuperSO8	30	9.2	1.0 ... 2.2	44
BSC100N03LS G	SP000275117	SuperSO8	30	10	1.0 ... 2.2	44
BSC120N03LS G	SP000302848	SuperSO8	30	12	1.0 ... 2.2	39
BSC150N03LD G	SP000359362	SuperSO8 (dual)	30	15	1.0 ... 2.2	20
BSD316SN	SP000442462	SOT363	30	160	1.2 ... 2.0	1.4
BSL302SN	SP000257783	TSOP6	30	25	1.2 ... 2.0	7.1
BSO150N03MD G	SP000447476	SO-8 (dual)	30	15	1.2 ... 2.0	9.3
BSO220N03MD G	SP000447478	SO-8 (dual)	30	22	1.0 ... 2.1	7.0
BSS306N	SP000442400	SOT23	30	57	1.2 ... 2.0	2.3
BSS316N	SP000442416	SOT23	30	160	1.2 ... 2.0	1.4
▼ BSZ019N03LS	SP000792362	S308	30	1.9	1.0 ... 2.2	40
BSZ035N03LS G	SP000278809	S308	30	3.5	1.0 ... 2.2	40
BSZ050N03LS G	SP000304139	S308	30	5.0	1.0 ... 2.2	40
BSZ058N03LS G	SP000307424	S308	30	5.8	1.0 ... 2.2	40
BSZ088N03LS G	SP000304138	S308	30	8.8	1.0 ... 2.2	40
BSZ100N03LS G	SP000304135	S308	30	10	1.0 ... 2.2	40
BSZ130N03LS G	SP000278810	S308	30	13	1.0 ... 2.2	35
IPB009N03L G	SP000394657	D <sup>2</sup> PAK 7pin	30	0.95	1.0 ... 2.2	180
IPB034N03L G	SP000304126	D <sup>2</sup> -PAK	30	3.4	1.2 ... 2.0	80
IPB042N03L G	SP000304124	D <sup>2</sup> -PAK	30	4.2	1.2 ... 2.0	70
IPB055N03L G	SP000304110	D <sup>2</sup> -PAK	30	5.5	1.2 ... 2.2	50
IPB065N03L G	SP000254709	D <sup>2</sup> -PAK	30	6.5	1.2 ... 2.2	50
IPB080N03L G	SP000304104	D <sup>2</sup> -PAK	30	8.0	1.2 ... 2.2	50
IPB096N03L G	SP000254711	D <sup>2</sup> -PAK	30	9.6	1.2 ... 2.2	35
IPB114N03L G	SP000304102	D <sup>2</sup> -PAK	30	11.4	1.0 ... 2.2	30
IPB147N03L G	SP000254712	D <sup>2</sup> -PAK	30	14.7	1.2 ... 2.0	30

SMD = Surface Mounted Device

Type	Ordering Code	Package	Data			
			$V_{DS}$	$R_{DS(on)max}$	$V_{GS(th)}$	$I_D$
			V	mΩ	V	A

**N-Channel MOSFETs****30 V**  
(cont'd)

IPD031N03M G	SP000313126	D-PAK	30	3.1	1.0 ... 2.2	90
IPD031N03L G	SP000680554	D-PAK	30	3.1	1.0 ... 2.2	90
IPD040N03L G	SP000680628	D-PAK	30	4.0	1.0 ... 2.0	90
IPD050N03L G	SP000680630	D-PAK	30	5.0	1.0 ... 2.0	50
IPD060N03L G	SP000680632	D-PAK	30	6.0	1.0 ... 2.2	50
IPD075N03L G	SP000680634	D-PAK	30	7.5	1.0 ... 2.2	50
IPD090N03L G	SP000680636	D-PAK	30	9.0	1.0 ... 2.2	40
IPD105N03L G	SP000254717	D-PAK	30	10.5	1.0 ... 2.2	35
IPD135N03L G	SP000236951	D-PAK	30	13.5	1.0 ... 2.2	30
■ IPP03N03LB G	SP000680786	TO220	30	3.4	1.0 ... 2.2	80
IPP034N03L G	SP000680772	TO220	30	3.4	1.0 ... 2.2	80
IPP042N03L G	SP000680792	TO220	30	4.2	1.2 ... 2.2	80
IPP055N03L G	SP000680806	TO220	30	5.5	1.2 ... 2.2	50
IPP065N03L G	SP000680818	TO220	30	6.5	1.0 ... 2.2	50
■ IPP07N03LB G	SP000680834	TO220	30	6.6	1.0 ... 2.2	50
IPP080N03L G	SP000680836	TO220	30	8.0	1.2 ... 2.2	50
IPP096N03L G	SP000680854	TO220	30	9.6	1.0 ... 2.2	35
■ IPP10N03LB G	SP000680860	TO220	30	9.9	1.0 ... 2.2	50
IPP114N03L G	SP000680862	TO220	30	11.4	1.0 ... 2.2	30
■ IPP13N03LB G	SP000680872	TO220	30	12.8	1.0 ... 2.2	30
IPP147N03L G	SP000680874	TO220	30	14.7	1.0 ... 2.2	20
IPS060N03L G	SP000705724	I-PAK SL	30	6.0	1.0 ... 2.2	50
IPS075N03L G	SP000705726	I-PAK SL	30	7.5	1.0 ... 2.2	50

SMD = Surface Mounted Device

# Power Semiconductors

Type	Ordering Code	Package	Data			
			$V_{DS}$	$R_{DS(on)max}$	$V_{GS(th)}$	$I_D$
			V	mΩ	V	A

## N-Channel MOSFETs

### Mobile Series, Gate Charge @ 4.5 V 30 V

BSC014N03MS G	SP000394681	SuperSO8	30	1.4	1.0 ... 2.0	100
BSC016N03MS G	SP000311502	SuperSO8	30	1.6	1.0 ... 2.0	100
BSC020N03MS G	SP000311503	SuperSO8	30	2.0	1.0 ... 2.0	100
BSC025N03MS G	SP000311505	SuperSO8	30	2.5	1.0 ... 2.0	100
BSC030N03MS G	SP000311506	SuperSO8	30	3.0	1.0 ... 2.0	100
BSC042N03MS G	SP000311512	SuperSO8	30	4.2	1.0 ... 2.0	93
BSC050N03MS G	SP000311507	SuperSO8	30	5.0	1.0 ... 2.0	80
BSC057N03MS G	SP000311513	SuperSO8	30	5.7	1.0 ... 2.0	71
BSC080N03MS G	SP000311514	SuperSO8	30	8.0	1.0 ... 2.0	53
BSC090N03MS G	SP000313120	SuperSO8	30	9.0	1.0 ... 2.0	48
BSC100N03MS G	SP000311515	SuperSO8	30	10	1.0 ... 2.0	44
BSC120N03MS G	SP000311516	SuperSO8	30	12	1.0 ... 2.0	39
BSO033N03MS G	SP000446072	SO-8	30	3.3	1.0 ... 2.0	17
BSO038N03MSC G	SP000527604	SO-8	30	3.8	1.0 ... 2.0	21
BSO040N03MS G	SP000446070	SO-8	30	4.0	1.0 ... 2.0	16
BSO051N03MS G	SP000446068	SO-8	30	5.1	1.0 ... 2.0	14
BSO065N03MS G	SP000446066	SO-8	30	6.5	1.0 ... 2.0	13
BSO083N03MS G	SP000446064	SO-8	30	8.3	1.0 ... 2.0	11
BSO108N03MSC G	SP000527616	SO-8	30	10.8	1.0 ... 2.0	12.2
BSO110N03MS G	SP000446062	SO-8	30	11	1.0 ... 2.0	12.1
BSO130N03MS G	SP000446050	SO-8	30	13	1.0 ... 2.0	9.0
BSO220N03MS G	SP000446060	SO-8	30	22	1.0 ... 2.1	8.6
BSZ035N03MS G	SP000311511	S308	30	3.5	1.0 ... 2.0	40
BSZ050N03MS G	SP000311518	S308	30	5.0	1.0 ... 2.0	40
BSZ058N03MS G	SP000311508	S308	30	5.8	1.0 ... 2.0	40
BSZ088N03MS G	SP000311509	S308	30	8.8	1.0 ... 2.0	40
BSZ100N03MS G	SP000311510	S308	30	10	1.0 ... 2.0	40
BSZ130N03MS G	SP000313122	S308	30	13	1.0 ... 2.0	35

SMD = Surface Mounted Device

Type	Ordering Code	Package	Data			
			$V_{DS}$ V	$R_{DS(on)max}$ mΩ	$V_{GS(th)}$ V	$I_D$ A

**N-Channel MOSFETs****40 V**

BSB014N04LX3 G	SP000597850	CanPAK™ M-size	40	1.4	2.0 ... 4.0	180
BSB015N04NX3 G	SP000597852	CanPAK™ M-size	40	1.5	2.0 ... 4.0	180
BSC016N04LS G	SP000394801	SuperSO8	40	1.6	1.2 ... 2.0	100
BSC017N04NS G	SP000394684	SuperSO8	40	1.7	2.0 ... 4.0	100
BSC018N04LS G	SP000388293	SuperSO8	40	1.8	1.2 ... 2.0	100
BSC019N04NS G	SP000388299	SuperSO8	40	1.9	2.0 ... 4.0	100
BSC027N04LS G	SP000354810	SuperSO8	40	2.7	1.2 ... 2.0	100
BSC030N04NS G	SP000354811	SuperSO8	40	3.0	2.0 ... 4.0	100
BSC035N04LS G	SP000391503	SuperSO8	40	3.5	1.2 ... 2.0	100
BSC050N04LS G	SP000354806	SuperSO8	40	5.0	1.2 ... 2.0	85
BSC054N04NS G	SP000354808	SuperSO8	40	5.4	2.0 ... 4.0	81
BSC059N04LS G	SP000391499	SuperSO8	40	5.9	1.2 ... 2.0	73
BSC093N04LS G	SP000387929	SuperSO8	40	9.3	1.2 ... 2.0	49
BSZ040N04LS G	SP000388295	S308	40	4.0	1.2 ... 2.0	40
BSZ042N04NS G	SP000388300	S308	40	4.2	2.0 ... 4.0	40
BSZ097N04LS G	SP000388296	S308	40	9.7	1.2 ... 2.0	40
BSZ105N04NS G	SP000388301	S308	40	10.5	2.0 ... 4.0	40
BSZ165N04NS G	SP000391523	S308	40	16.5	2.0 ... 4.0	31
IPB011N04L G	SP000391498	D <sup>2</sup> -PAK 7pin	40	1.1	1.2 ... 2.0	180
IPB011N04N G	SP000388298	D <sup>2</sup> -PAK 7pin	40	1.1	2.0 ... 4.0	180
IPB020N04N G	SP000359157	D <sup>2</sup> -PAK 7pin	40	2.0	2.0 ... 4.0	140
IPB015N04L G	SP000387948	D <sup>2</sup> -PAK	40	1.5	1.2 ... 2.0	120
IPB015N04N G	SP000391522	D <sup>2</sup> -PAK	40	1.5	2.0 ... 4.0	120
IPB022N04L G	SP000391497	D <sup>2</sup> -PAK	40	2.2	1.2 ... 2.0	90
IPB023N04N G	SP000391519	D <sup>2</sup> -PAK	40	2.3	2.0 ... 4.0	90
IPB039N04L G	SP000391495	D <sup>2</sup> -PAK	40	3.9	1.2 ... 2.0	80
IPB041N04N G	SP000391511	D <sup>2</sup> -PAK	40	4.1	2.0 ... 4.0	80
IPB052N04N G	SP000391505	D <sup>2</sup> -PAK	40	5.2	2.0 ... 4.0	70
IPB075N04L G	SP000387943	D <sup>2</sup> -PAK	40	7.5	1.2 ... 2.0	50
IPB093N04L G	SP000387937	D <sup>2</sup> -PAK	40	9.3	1.2 ... 2.0	50
IPD036N04L G	SP000387945	D-PAK	40	3.6	1.0 ... 2.0	90
IPD038N04N G	SP000391507	D-PAK	40	3.8	2.0 ... 4.0	90
IPD088N04L G	SP000354798	D-PAK	40	8.8	1.0 ... 2.0	50
IPD105N04L G	SP000354796	D-PAK	40	10.5	1.0 ... 2.0	40
IPD160N04L G	SP000387933	D-PAK	40	16	1.0 ... 2.0	30
IPD170N04N G	SP000388297	D-PAK	40	17	2.0 ... 4.0	30
IPP015N04N G	SP000680760	TO220	40	1.5	2.0 ... 4.0	120
IPP023N04N G	SP000680762	TO220	40	2.3	2.0 ... 4.0	90
IPP039N04L G	SP000680782	TO220	40	3.9	1.2 ... 2.0	80
IPP041N04N G	SP000680790	TO220	40	4.1	2.0 ... 4.0	80
▼ IPP048N04N G	SP000648308	TO220	40	4.8	2.0 ... 4.0	70
▼ IPP065N04N G	SP000648268	TO220	40	6.5	2.0 ... 4.0	50

SMD = Surface Mounted Device

# Power Semiconductors

Type	Ordering Code	Package	Data			
			$V_{DS}$	$R_{DS(on)max}$	$V_{GS(th)}$	$I_D$
			V	mΩ	V	A

## N-Channel MOSFETs

### 55 V

BSS670S2L	SP000247301	SOT23	55	650	1.2 ... 2.0	0.54
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### 60 V

BSC028N06LS3 G	SP000453652	SuperSO8	60	2.8	1.2 ... 2.2	100
BSC031N06NS3 G	SP000451482	SuperSO8	60	3.1	2.0 ... 4.0	100
BSC067N06LS3 G	SP000451084	SuperSO8	60	6.7	1.2 ... 2.2	50
BSC076N06NS3 G	SP000453656	SuperSO8	60	7.6	2.0 ... 4.0	50
BSC100N06LS3 G	SP000453664	SuperSO8	60	10	1.2 ... 2.2	50
BSC110N06NS3 G	SP000453668	SuperSO8	60	11	2.0 ... 4.0	50
BSZ067N06LS3 G	SP000451080	S308	60	6.7	1.2 ... 2.2	20
BSZ076N06LS3 G	SP000454420	S308	60	7.6	2.0 ... 4.0	20
BSZ100N06LS3 G	SP000453672	S308	60	10	1.7 ... 2.2	20
BSZ110N06NS3 G	SP000453676	S308	60	11	2.0 ... 4.0	20
BSL806N	SP000464844	TSOP6 dual	60	57	0.3 ... 0.75	2.3
▼ IPA032N06N3 G	SP000453608	TO220 FullPAK	60	3.2	2.0 ... 4.0	84
▼ IPA057N06N3 G	SP000457582	TO220 FullPAK	60	5.7	2.0 ... 4.0	60
▼ IPA093N06N3 G	SP000451088	TO220 FullPAK	60	9.3	2.0 ... 4.0	43
IPB016N06L3 G	SP000453040	D <sup>2</sup> -PAK 7pin	60	1.6	1.2 ... 2.2	180
IPB017N06N3 G	SP000434404	D <sup>2</sup> -PAK 7pin	60	1.7	2.0 ... 4.0	180
IPB023N06N3 G	SP000453048	D <sup>2</sup> -PAK 7pin	60	2.3	2.0 ... 4.0	140
▼ IPB034N06L3 G	SP000398062	D <sup>2</sup> -PAK 7pin	60	3.4	1.2 ... 2.2	90
IPB034N06N3 G	SP000397990	D <sup>2</sup> -PAK 7pin	60	3.4	2.0 ... 4.0	100
IPB019N06L3 G	SP000453020	D <sup>2</sup> -PAK	60	1.9	1.2 ... 2.2	120
IPB021N06N3 G	SP000452248	D <sup>2</sup> -PAK	60	2.1	2.0 ... 4.0	120
IPB029N06N3 G	SP000453052	D <sup>2</sup> -PAK	60	2.9	2.0 ... 4.0	120
IPB034N06L3 G	SP000398062	D <sup>2</sup> -PAK	60	3.4	1.2 ... 2.2	90
IPB037N06N3 G	SP000397986	D <sup>2</sup> -PAK	60	3.7	2.0 ... 4.0	90
IPB048N06L G	SP000204181	D <sup>2</sup> -PAK	60	4.4	1.2 ... 2.0	100
IPB049N06L3 G	SP000453056	D <sup>2</sup> -PAK	60	4.9	1.2 ... 2.2	80
IPB050N06N G	SP000204170	D <sup>2</sup> -PAK	60	4.7	2.1 ... 4.0	100
IPB054N06N3 G	SP000446782	D <sup>2</sup> -PAK	60	5.4	2.1 ... 4.0	80
IPB081N06L3 G	SP000398076	D <sup>2</sup> -PAK	60	8.1	1.2 ... 2.2	50
IPB090N06N3 G	SP000398042	D <sup>2</sup> -PAK	60	9.0	2.1 ... 4.0	50
IPB230N06L3 G	SP000457584	D <sup>2</sup> -PAK	60	23	1.2 ... 2.2	30
IPB260N06N3 G	SP000453630	D <sup>2</sup> -PAK	60	26	2.0 ... 4.0	27
IPD031N06L3 G	SP000451076	D-PAK	60	3.1	1.2 ... 2.2	100
IPD034N06N3 G	SP000451070	D-PAK	60	3.4	2.0 ... 4.0	100
IPD035N06L3 G	SP000398066	D-PAK	60	3.5	1.2 ... 2.2	90
IPD038N06N3 G	SP000397994	D-PAK	60	3.8	2.0 ... 4.0	90
IPD048N06L3 G	SP000453334	D-PAK	60	4.8	1.2 ... 2.2	90
IPD053N06N3 G	SP000453318	D-PAK	60	5.3	2.0 ... 4.0	90
IPD079N06L3 G	SP000453626	D-PAK	60	7.9	1.2 ... 2.2	50
IPD088N06N3 G	SP000453620	D-PAK	60	8.8	2.0 ... 4.0	50
IPD127N06L G	SP000443740	D-PAK	60	12.7	1.2 ... 2.0	50
IPD144N06N G	SP000443738	D-PAK	60	14.4	2.1 ... 4.0	200
IPD220N06L3 G	SP000453644	D-PAK	60	22	1.2 ... 2.2	30
IPD230N06N G	SP000450200	D-PAK	60	23	2.1 ... 4.0	120

SMD = Surface Mounted Device



Type	Ordering Code	Package	Data			
			$V_{DS}$ V	$R_{DS(on)max}$ m $\Omega$	$V_{GS(th)}$ V	$I_D$ A

**N-Channel MOSFETs****60 V**  
(cont'd)

IPD250N06N3 G	SP000453634	D-PAK	60	25	2.0 ... 4.0	28
IPD350N06L G	SP000443746	D-PAK	60	35	1.2 ... 2.0	29
▼ IPD400N06L G	SP000443744	D-PAK	60	40	2.0 ... 4.0	27
IPD640N06L G	SP000443766	D-PAK	60	64	1.2 ... 2.0	18
IPD800N06N G	SP000443764	D-PAK	60	80	2.1 ... 4.0	64
IPI024N06N3 G	SP000680644	I <sup>2</sup> -PAK	60	2.1	2.0 ... 4.0	120
IPI032N06N3 G	SP000680650	I <sup>2</sup> -PAK	60	2.9	2.0 ... 4.0	120
IPI037N06L3 G	SP000680652	I <sup>2</sup> -PAK	60	3.7	1.2 ... 2.2	90
IPI040N06N3 G	SP000680656	I <sup>2</sup> -PAK	60	4.0	2.0 ... 4.0	90
IPP024N06N3 G	SP000680764	TO220	60	2.4	2.0 ... 4.0	120
IPP032N06N3 G	SP000680770	TO220	60	3.2	2.0 ... 4.0	120
IPP037N06L3 G	SP000680774	TO220	60	3.7	1.2 ... 2.2	90
IPP040N06N3 G	SP000680788	TO220	60	4.0	2.0 ... 4.0	90
IPP052N06L3 G	SP000680802	TO220	60	4.9	1.2 ... 2.0	80
IPP057N06N3 G	SP000680808	TO220	60	5.7	2.0 ... 4.0	80
IPP065N06L G	SP000204182	TO220	60	6.5	1.2 ... 2.0	80
IPP881N06N G	SP000680968	TO220	60	7.0	2.1 ... 4.0	80
IPP084N06L3 G	SP000680838	TO220	60	8.1	1.2 ... 2.0	50
IPP085N06L G	SP000204188	TO220	60	8.5	1.2 ... 2.0	80
IPP093N06N3 G	SP000680852	TO220	60	9.0	2.0 ... 4.0	50
IPP120N06N G	SP000204175	TO220	60	12	1.2 ... 2.0	75
IPP230N06L3 G	SP000680886	TO220	60	23	1.2 ... 2.2	30
IPP260N06N3 G	SP000680918	TO220	60	26	2.0 ... 4.0	27
BSO615N G	SP000216316	SO-8 dual	60	150	1.2 ... 2.0	2.60
BSP295	SP000089210	SOT223	60	300	0.8 ... 1.8	1.80
BSP318S	SP000235371	SOT223	60	90	1.2 ... 2.0	2.60
BSP320S	SP000235375	SOT223	60	120	2.1 ... 4.0	2.90
BSP320S L6433	SP000235376	SOT223	60	120	2.1 ... 4.0	2.90
2N7002	SP000868322	SOT23	60	3000	1.5 ... 2.5	0.20
▼ 2N7002 L6433	SP000247306	SOT23	60	3000	1.5 ... 2.5	0.20
BSS138N	SP000639080	SOT23	60	3500	0.6 ... 1.4	0.23
BSS138N L6433	SP000247294	SOT23	60	3500	0.6 ... 1.4	0.23
BSS7728N	SP000702640	SOT23	60	5000	1.3 ... 2.3	0.20
SN7002N	SP000702638	SOT23	60	5000	0.8 ... 1.8	0.20
BSS138W	SP000245411	SOT323	60	3500	0.6 ... 1.4	0.28
BSS138W L6433	SP000245412	SOT323	60	3500	0.6 ... 1.4	0.28
SN7002W	SP000245414	SOT323	60	5000	0.8 ... 1.8	0.23
▼ SN7002W L6433	SP000245413	SOT323	60	5000	0.8 ... 1.8	0.23
2N7002DW	SP000408436	SOT363 dual	60	3000	1.5 ... 2.5	0.30

SMD = Surface Mounted Device

# Power Semiconductors

Type	Ordering Code	Package	Data			
			$V_{DS}$ V	$R_{DS(on)max}$ mΩ	$V_{GS(th)}$ V	$I_D$ A

## N-Channel MOSFETs

### 75 V

▼ BSC042NE7NS3 G	SP000657440	SuperSO8	75	4.2	2.3 ... 3.8	100
IPB020NE7N3 G	SP000676950	D <sup>2</sup> -PAK	75	2.0	2.3 ... 3.8	120
IPB031NE7N3 G	SP000641730	D <sup>2</sup> -PAK	75	3.1	2.3 ... 3.8	100
IPB049NE7N3 G	SP000641752	D <sup>2</sup> -PAK	75	4.9	2.3 ... 3.8	80
IPI023NE7N3 G	SP000641732	I <sup>2</sup> -PAK	75	2.3	2.3 ... 3.8	120
IPI034NE7N3 G	SP000641734	I <sup>2</sup> -PAK	75	3.4	2.3 ... 3.8	100
IPI052NE7N3 G	SP000657442	I <sup>2</sup> -PAK	75	5.2	2.3 ... 3.8	80
IPP023NE7N3 G	SP000641722	TO220	75	2.3	2.3 ... 3.8	120
IPP034NE7N3 G	SP000843890	TO220	75	3.4	2.3 ... 3.8	100
IPP052NE7N3 G	SP000846650	TO220	75	5.2	2.3 ... 3.8	80
▼ IPP062NE7N3 G	SP000846652	TO220	75	6.2	2.3 ... 3.8	80

### 80 V

BSC047N08NS3 G	SP000436372	SuperSO8	80	4.7	2.0 ... 3.5	100
BSC057N08NS3 G	SP000447542	SuperSO8	80	5.7	2.0 ... 3.5	100
BSC123N08NS3 G	SP000443916	SuperSO8	80	12.3	2.0 ... 3.5	55
BSC340N08NS3 G	SP000447534	SuperSO8	80	34	2.0 ... 3.5	23
BSZ123N08NS3 G	SP000443632	S308	80	12.3	2.0 ... 3.5	40
BSZ340N08NS3 G	SP000443634	S308	80	34	2.0 ... 3.5	23
IPA028N08N3 G	SP000446770	TO220 FullPAK	80	2.8	2.0 ... 3.5	100
IPA037N08N3 G	SP000446772	TO220 FullPAK	80	3.7	2.0 ... 3.5	75
IPA057N08N3 G	SP000454442	TO220 FullPAK	80	5.7	2.0 ... 3.5	60
IPA100N08N3 G	SP000473900	TO220 FullPAK	80	10	2.0 ... 3.5	40
IPB019N08N3 G	SP000444110	D <sup>2</sup> -PAK 7pin	80	1.9	2.0 ... 3.5	180
IPB030N08N3 G	SP000444100	D <sup>2</sup> -PAK 7pin	80	3.0	2.0 ... 3.5	160
IPB025N08N3 G	SP000311980	D <sup>2</sup> -PAK	80	2.5	2.0 ... 3.5	120
IPB035N08N3 G	SP000457588	D <sup>2</sup> -PAK	80	3.5	2.0 ... 3.5	100
IPB054N08N3 G	SP000395166	D <sup>2</sup> -PAK	80	5.4	2.0 ... 3.5	80
IPB067N08N3 G	SP000443636	D <sup>2</sup> -PAK	80	6.7	2.0 ... 3.5	80
IPB097N08N3 G	SP000474200	D <sup>2</sup> -PAK	80	9.7	2.0 ... 3.5	70
IPB136N08N3 G	SP000447512	D <sup>2</sup> -PAK	80	13.6	2.0 ... 3.5	45
IPD053N08N3 G	SP000395183	D-PAK	80	5.3	2.0 ... 3.5	90
IPD096N08N3 G	SP000474196	D-PAK	80	9.6	2.0 ... 3.5	73
IPD135N08N3 G	SP000454266	D-PAK	80	13.5	2.0 ... 3.5	45
IPI028N08N3 G	SP000680646	I <sup>2</sup> -PAK	80	2.8	2.0 ... 3.5	100
IPI037N08N3 G	SP000680654	I <sup>2</sup> -PAK	80	3.7	2.0 ... 3.5	100
IPI057N08N3 G	SP000680662	I <sup>2</sup> -PAK	80	5.7	2.0 ... 3.5	90
IPI070N08N3 G	SP000680672	I <sup>2</sup> -PAK	80	7.0	2.0 ... 3.5	100
IPI100N08N3 G	SP000680710	I <sup>2</sup> -PAK	80	9.7	2.0 ... 3.5	70
IPI139N08N3 G	SP000680716	I <sup>2</sup> -PAK	80	13.9	2.0 ... 3.5	45
IPP028N08N3 G	SP000680766	TO220	80	2.8	2.0 ... 3.5	100
IPP037N08N3 G	SP000680776	TO220	80	3.7	2.0 ... 3.5	100
▼ IPP037N08N3 G E8181	SP000765976	TO220	80	3.7	2.0 ... 3.5	100

SMD = Surface Mounted Device

Type	Ordering Code	Package	Data			
			$V_{DS}$	$R_{DS(on)max}$	$V_{GS(th)}$	$I_D$
			V	mΩ	V	A

**N-Channel MOSFETs****80 V**  
(cont'd)

IPP057N08N3 G	SP000680810	TO220	80	5.7	2.0 ... 3.5	80
IPP070N08N3 G	SP000680828	TO220	80	7.0	2.0 ... 3.5	80
IPP882N08N G	SP000680972	TO220	60	7.0	2.1 ... 4.0	80
IPP100N08N3 G	SP000680856	TO220	80	10.0	2.0 ... 3.5	70
IPP139N08N3 G	SP000680870	TO220	80	13.9	2.0 ... 3.5	45
IPU103N08N3 G	SP000521640	I-PAK	80	10.3	2.0 ... 3.5	50
IPU135N08N3 G	SP000521642	I-PAK	80	13.5	2.0 ... 3.5	50

**85 V**

■ IPD12CNE8N G	SP000096477	D-PAK	85	12.4	2.0 ... 4.0	67
■ IPP04CNE8N G	SP000680798	TO220	85	3.9	2.0 ... 4.0	100
■ IPP054CNE8N G	SP000680804	TO220	85	5.4	2.0 ... 4.0	100
■ IPP08CNE8N G	SP000680846	TO220	85	8.2	2.0 ... 4.0	95
■ IPP12CNE8N G	SP000680868	TO220	85	12.9	2.0 ... 4.0	67
■ IPP16CNE8N G	SP000680882	TO220	85	16.5	2.0 ... 4.0	53
■ IPP26CNE8N G	SP000680924	TO220	85	26	2.0 ... 4.0	35

SMD = Surface Mounted Device

# Power Semiconductors

Type	Ordering Code	Package	Data			
			$V_{DS}$	$R_{DS(on)max}$	$V_{GS(th)}$	$I_D$
			V	mΩ	V	A

## N-Channel MOSFETs

### 100 V

BSC060N10NS3 G	SP000446584	SuperSO8	100	6.0	2.0 ... 3.5	90
▼ BSC070N10NS3 G	SP000778082	SuperSO8	100	7.0	2.0 ... 3.5	90
■ BSC079N10NS G	SP000379590	SuperSO8	100	7.9	2.0 ... 4.0	100
BSC082N10LS G	SP000379609	SuperSO8	100	8.2	1.2 ... 2.4	100
■ BSC100N10NSF G	SP000379595	SuperSO8	100	10	2.0 ... 4.0	90
BSC105N10LSF G	SP000388502	SuperSO8	100	10.5	1.2 ... 2.4	90
▼ BSC109N10NS3 G	SP000778132	SuperSO8	100	10.9	2.0 ... 3.5	63
BSC118N10NS G	SP000379599	SuperSO8	100	11.8	2.0 ... 4.0	71
BSC123N10LS G	SP000379612	SuperSO8	100	12.3	1.2 ... 2.4	71
BSC152N10NSF G	SP000379601	SuperSO8	100	15.2	2.0 ... 4.0	63
BSC159N10LSF G	SP000379614	SuperSO8	100	15.9	1.2 ... 2.4	63
BSC160N10NS3 G	SP000482382	SuperSO8	100	16	2.0 ... 3.5	42
BSC196N10NS G	SP000379604	SuperSO8	100	19.6	2.0 ... 4.0	45
BSC205N10LS G	SP000379616	SuperSO8	100	20.5	1.2 ... 2.4	45
BSC252N10NSF G	SP000379608	SuperSO8	100	25.2	2.0 ... 4.0	39
BSC265N10LSF G	SP000379618	SuperSO8	100	26.5	1.2 ... 2.4	40
BSC440N10NS3 G	SP000482420	SuperSO8	100	44	2.0 ... 3.5	18
BSC750N10ND G	SP000359610	SuperSO8 dual	100	75	2.0 ... 4.0	13
▼ BSZ160N10NS3 G	SP000482390	S308	100	16	2.0 ... 3.5	40
BSZ440N10NS3 G	SP000482442	S308	100	44	2.0 ... 3.5	18
IPA030N10N3 G	SP000464914	TO220 FullPAK	100	3.0	2.0 ... 3.5	79
IPA045N10N3 G	SP000478912	TO220 FullPAK	100	4.5	2.0 ... 3.5	64
IPA086N10N3 G	SP000485984	TO220 FullPAK	100	8.6	2.0 ... 3.5	45
IPA126N10N3 G	SP000485964	TO220 FullPAK	100	12.6	2.0 ... 3.5	35
IPA180N10N3 G	SP000480108	TO220 FullPAK	100	18	2.0 ... 3.5	19
IPB025N10N3 G	SP000469888	D <sup>2</sup> -PAK 7pin	100	2.5	2.0 ... 3.5	180
IPB039N10N3 G	SP000482428	D <sup>2</sup> -PAK 7pin	100	3.9	2.0 ... 3.5	160
IPB027N10N3 G	SP000506508	D <sup>2</sup> -PAK	100	2.7	2.0 ... 3.5	120
IPB042N10N3 G	SP000446880	D <sup>2</sup> -PAK	100	4.2	2.0 ... 3.5	100
IPB083N10N3 G	SP000458812	D <sup>2</sup> -PAK	100	8.2	2.0 ... 3.5	80
IPB123N10N3 G	SP000485968	D <sup>2</sup> -PAK	100	12.3	2.0 ... 3.5	58
IPB26CN10N G	SP000277692	D <sup>2</sup> -PAK	100	26	2.0 ... 4.0	35
IPB34CN10N G	SP000277693	D <sup>2</sup> -PAK	100	34	2.0 ... 4.0	27
IPB50CN10N G	SP000277696	D <sup>2</sup> -PAK	100	50	2.0 ... 4.0	20
IPD068N10N3 G	SP000469892	D-PAK	100	6.8	2.0 ... 3.5	90
IPD082N10N3 G	SP000485986	D-PAK	100	8.2	2.0 ... 3.5	80
IPD122N10N3 G	SP000485966	D-PAK	100	12.2	2.0 ... 4.0	59
IPD12CN10N G	SP000096476	D-PAK	100	12.4	2.0 ... 4.0	67
IPD180N10N3 G	SP000482438	D-PAK	100	18	2.0 ... 3.5	43
IPD25CN10N G	SP000096456	D-PAK	100	25	2.0 ... 4.0	35
IPD33CN10N G	SP000096458	D-PAK	100	33	2.0 ... 4.0	27
IPD78CN10N G	SP000096460	D-PAK	100	78	2.0 ... 4.0	13

SMD = Surface Mounted Device

Type	Ordering Code	Package	Data			
			$V_{DS}$ V	$R_{DS(on)max}$ mΩ	$V_{GS(th)}$ V	$I_D$ A
<b>N-Channel MOSFETs</b>						
<b>100 V</b>						
(cont'd)						
▼ IPI0030N10N3 G	SP000680648	I <sup>2</sup> -PAK	100	3.0	2.0 ... 3.5	100
■ IPI04CN10N G	SP000680660	I <sup>2</sup> -PAK	100	4.2	2.0 ... 4.0	100
IPI045CN10N3 G	SP000683068	I <sup>2</sup> -PAK	100	4.5	2.0 ... 3.5	100
■ IPI05CN10N G	SP000680664	I <sup>2</sup> -PAK	100	5.4	2.0 ... 4.0	100
■ IPI06CN10N G	SP000680668	I <sup>2</sup> -PAK	100	6.5	2.0 ... 4.0	100
IPI072CN10N3 G	SP000680674	I <sup>2</sup> -PAK	100	7.2	2.0 ... 3.5	80
■ IPI08CN10N G	SP000680678	I <sup>2</sup> -PAK	100	8.5	2.0 ... 4.0	95
IPI086CN10N3 G	SP000683070	I <sup>2</sup> -PAK	100	8.6	2.0 ... 3.5	80
IPI126N10N3 G	SP000683072	I <sup>2</sup> -PAK	100	12.6	2.7 ... 3.5	46
■ IPI12CN10N G	SP000680712	I <sup>2</sup> -PAK	100	12.9	2.0 ... 4.0	67
■ IPI16CN10N G	SP000680718	I <sup>2</sup> -PAK	100	16.5	2.0 ... 4.0	53
IPI180N10N3 G	SP000683076	I <sup>2</sup> -PAK	100	18	2.7 ... 3.5	43
IPI26CN10N G	SP000680726	I <sup>2</sup> -PAK	100	26	2.0 ... 4.0	35
IPI35CN10N G	SP000680730	I <sup>2</sup> -PAK	100	35	2.0 ... 4.0	27
IPI50CN10N G	SP000680732	I <sup>2</sup> -PAK	100	50	2.0 ... 4.0	20
IPI80CN10N G	SP000680758	I <sup>2</sup> -PAK	100	80	2.0 ... 4.0	13
IPP030N10N3 G	SP000680768	TO220	100	3.0	2.0 ... 3.5	100
■ IPP04CN10N G	SP000680796	TO220	100	4.2	2.0 ... 4.0	100
IPP045N10N3 G	SP000680794	TO220	100	4.5	2.0 ... 3.5	100
IPP05CN10L G	SP000680812	TO220	100	5.1	1.2 ... 2.4	100
■ IPP05CN10N G	SP000680814	TO220	100	5.4	2.0 ... 4.0	100
IPP06CN10L G	SP000680820	TO220	100	6.2	1.2 ... 2.4	100
IPP072N10N3 G	SP000680830	TO220	100	7.2	2.0 ... 3.5	80
IPP08CN10L G	SP000680842	TO220	100	8.0	1.2 ... 2.4	98
IPP086N10N3 G	SP000680840	TO220	100	8.6	2.0 ... 3.5	80
IPP12CN10L G	SP000680864	TO220	100	12	1.2 ... 2.4	69
IPP126N10N3 G	SP000683088	TO220	100	12.6	2.0 ... 3.5	58
■ IPP12CN10N G	SP000680866	TO220	100	12.9	2.0 ... 4.0	67
IPP16CN10L G	SP000680878	TO220	100	15.7	1.2 ... 2.4	54
■ IPP16CN10N G	SP000680880	TO220	100	16.5	2.0 ... 4.0	53
IPP180N10N3 G	SP000683090	TO220	100	18	2.0 ... 3.5	43
IPP26CN10N G	SP000680922	TO220	100	26	2.0 ... 4.0	35
IPP50CN10N G	SP000680930	TO220	100	50	2.0 ... 4.0	20
IPP80CN10N G	SP000680966	TO220	100	80	2.0 ... 4.0	13
IPS118N10N G	SP000680974	I-PAK SL	100	11.8	2.0 ... 4.0	75
IPS12CN10L G	SP000311530	I-PAK SL	100	12	1.2 ... 2.4	69
BSP373	SP000087065	SOT223	100	300	2.1 ... 4.0	1.70
BSP372	SP000087064	SOT223	100	310@5V	0.8 ... 2.0	1.7
BSP296	SP000089209	SOT223	100	700	0.8 ... 1.8	1.1
BSP296 L6433	SP000089212	SOT223	100	700	0.8 ... 1.8	1.1
BSP123	SP000089202	SOT223	100	6000	0.8 ... 1.8	0.37
BSP123 L6433	SP000247292	SOT223	100	6000	0.8 ... 1.8	0.37
BSS119	SP000247290	SOT23	100	6000	1.3 ... 2.3	0.17
BSS119 L6433	SP000247291	SOT23	100	6000	1.3 ... 2.3	0.17
BSS123	SP000084574	SOT23	100	6000	0.8 ... 1.8	0.17

SMD = Surface Mounted Device

# Power Semiconductors

Type	Ordering Code	Package	Data			
			$V_{DS}$ V	$R_{DS(on)max}$ mΩ	$V_{GS(th)}$ V	$I_D$ A

## N-Channel MOSFETs

### 120 V

BSC077N12NS3 G	SP000652750	SuperSO8	120	7.7	2.0 ... 4.0	98
BSC190N12NS3 G	SP000652752	SuperSO8	120	19	2.0 ... 4.0	44
▼ BSC240N12NS3 G	SP000819812	SuperSO8	120	24	2.0 ... 4.0	37
▼ BSZ240N12NS3 G	SP000819814	S308	120	24	2.0 ... 4.0	37
IPB036N12N3 G	SP000675204	D <sup>2</sup> -PAK	120	3.6	2.0 ... 4.0	180
IPB038N12N3 G	SP000694160	D <sup>2</sup> -PAK	120	3.8	2.0 ... 4.0	120
IPB144N12N3 G	SP000694166	D <sup>2</sup> -PAK	120	14.4	2.0 ... 4.0	56
IPD110N12N3 G	SP000674466	D-PAK	120	11	2.0 ... 4.0	75
IPI041N12N3 G	SP000652748	I <sup>2</sup> -PAK	120	4.1	2.0 ... 4.0	120
IPI076N12N3 G	SP000652738	I <sup>2</sup> -PAK	120	7.6	2.0 ... 4.0	100
IPI147N12N3 G	SP000652744	I <sup>2</sup> -PAK	120	14.7	2.0 ... 4.0	56
IPP041N12N3 G	SP000652746	TO220	120	4.1	2.0 ... 4.0	120
IPP048N12N3 G	SP000652734	TO220	120	4.8	2.0 ... 4.0	100
IPP076N12N3 G	SP000652736	TO220	120	7.6	2.0 ... 4.0	100
IPP114N12N3 G	SP000652740	TO220	120	11.4	2.0 ... 4.0	75
IPP147N12N3 G	SP000652742	TO220	120	14.7	2.0 ... 4.0	56
IPS110N12N3 G	SP000674456	I-PAK SL	120	11	2.0 ... 4.0	75

### 150 V

BSC190N15NS3 G	SP000416636	SuperSO8	150	19	2.0 ... 4.0	50
▼ BSC360N15NS3 G	SP000778134	SuperSO8	150	36	2.0 ... 4.0	33
BSC520N15NS3 G	SP000521716	SuperSO8	150	52	2.0 ... 4.0	21
▼ BSZ520N15NS3 G	SP000607022	S308	150	52	2.0 ... 4.0	21
▼ BSZ900N15NS3 G	SP000677866	S308	150	90	2.0 ... 4.0	13
IPA105N15N3 G	SP000677850	TO220 FullPAK	150	7.5	2.0 ... 4.0	43
▼ IPA075N15N3 G	SP000607018	TO220 FullPAK	150	10.5	2.0 ... 4.0	41
IPB065N15N3 G	SP000521724	D <sup>2</sup> -PAK	150	6.5	2.0 ... 4.0	70
IPB072N15N3 G	SP000386664	D <sup>2</sup> -PAK	150	7.2	2.0 ... 4.0	100
IPB108N15N3 G	SP000677862	D <sup>2</sup> -PAK	150	10.8	2.0 ... 4.0	83
IPB200N15N3 G	SP000414740	D <sup>2</sup> -PAK	150	20	2.0 ... 4.0	50
IPB530N15N3 G	SP000521718	D <sup>2</sup> -PAK	150	53	2.0 ... 4.0	8.7
IPD200N15N3 G	SP000386665	D-PAK	150	20	2.0 ... 4.0	50
IPD530N15N3 G	SP000521720	D-PAK	150	53	2.0 ... 4.0	8.7
IPI075N15N3 G	SP000680676	I <sup>2</sup> -PAK	150	7.5	2.0 ... 4.0	100
IPI111N15N3 G	SP000680232	I <sup>2</sup> -PAK	150	11.1	2.0 ... 4.0	83
IPI200N15N3 G	SP000680722	I <sup>2</sup> -PAK	150	20	2.0 ... 4.0	50
▼ IPI530N15N3 G	SP000807642	I <sup>2</sup> -PAK	150	53	2.0 ... 4.0	21
IPP075N15N3 G	SP000680832	TO220	150	7.5	2.0 ... 4.0	100
IPP111N15N3 G	SP000677860	TO220	150	11.1	2.0 ... 4.0	83
IPP200N15N3 G	SP000680884	TO220	150	20	2.0 ... 4.0	50
IPP530N15N3 G	SP000521722	TO220	150	53	2.0 ... 4.0	8.7

SMD = Surface Mounted Device

Type	Ordering Code	Package	Data			
			$V_{DS}$ V	$R_{DS(on)max}$ m $\Omega$	$V_{GS(th)}$ V	$I_D$ A

**N-Channel MOSFETs****200 V**

BSC320N20NS3 G	SP000676410	SuperSO8	200	32	2.0 ... 4.0	36
▼ BSC900N20NS3 G	SP000781780	SuperSO8	200	90	2.0 ... 4.0	15.2
▼ BSC12DN20NS3 G	SP000781774	SuperSO8	200	125	2.0 ... 4.0	11.3
▼ BSC22DN20NS3 G	SP000781778	SuperSO8	200	225	2.0 ... 4.0	7.0
▼ BSZ900N20NS3 G	SP000781806	S308	200	90	2.0 ... 4.0	15.2
▼ BSZ12DN20NS3 G	SP000781784	S308	200	125	2.0 ... 4.0	11.3
▼ BSZ22DN20NS3 G	SP000781794	S308	200	225	2.0 ... 4.0	7.0
IPB107N20N3 G	SP000676406	D <sup>2</sup> -PAK	200	10.7	2.0 ... 4.0	88
IPB320N20N3 G	SP000691172	D <sup>2</sup> -PAK	200	32	2.0 ... 4.0	34
IPD320N20N3 G	SP000677838	D-PAK	200	32	2.0 ... 4.0	34
SPD07N20 G	SP000449008	D-PAK	200	400	2.1 ... 4.0	7
IPI110N20N3 G	SP000714304	I <sup>2</sup> -PAK	200	11	2.0 ... 4.0	65
IPI320N20N3 G	SP000714312	I <sup>2</sup> -PAK	200	32	2.0 ... 4.0	22
IPP110N20N3 G	SP000677892	TO220	200	11.1	2.0 ... 4.0	88
IPP320N20N3 G	SP000677842	TO220	200	32	2.0 ... 4.0	34
▼ BUZ30A H	SP000682990	TO220	200	130	2.1 ... 4.0	21
▼ BUZ30A H3045A	SP000736082	TO220	200	130	2.1 ... 4.0	21
▼ BUZ31 H	SP000682992	TO220	200	200	2.1 ... 4.0	14.5
▼ BUZ31 H3045A	SP000736084	TO220	200	200	2.1 ... 4.0	14.5
▼ BUZ31L H	SP000682996	TO220	200	200	1.2 ... 2.0	13.5
▼ BUZ73AL H	SP000683012	TO220	200	400	1.2 ... 2.0	7.0
▼ BUZ32 H	SP000682998	TO220	200	400	2.1 ... 4.0	9.5
▼ BUZ32 H3045A	SP000736086	TO220	200	400	2.1 ... 4.0	9.5
▼ BUZ73 H	SP000683000	TO220	200	400	2.1 ... 4.0	7.0
▼ BUZ73 H3046	SP000683002	TO220	200	400	2.1 ... 4.0	7.0
▼ BUZ73L H	SP000683014	TO220	200	400	1.2 ... 2.0	7.0
▼ BUZ73A H	SP000683004	TO220	200	600	2.1 ... 4.0	5.5
▼ BUZ73A H3046	SP000683006	TO220	200	600	2.1 ... 4.0	5.5
BSP297	SP000089213	SOT223	200	1800	0.8 ... 1.8	0.66

**240 V**

BSP88	SP000089217	SOT223	240	6000	0.6 ... 1.4	0.35
BSP89	SP000089216	SOT223	240	6000	0.8 ... 1.8	0.35
BSS87	SP000095794	SOT89	240	6000	0.8 ... 1.8	0.26
BSS131	SP000247293	SOT23	240	14000	0.8 ... 1.8	0.11

**250 V**

BSC600N25NS3 G	SP000676402	SuperSO8	250	60	2.0 ... 4.0	25
▼ BSC16DN25NS3 G	SP000781782	SuperSO8	250	165	2.0 ... 4.0	10.9
▼ BSZ16DN25NS3 G	SP000781800	S308	250	165	2.0 ... 4.0	10.9
▼ BSZ42DN15NS3 G	SP000781796	S308	250	425	2.0 ... 4.0	5.0
IPB200N25N3 G	SP000677896	D <sup>2</sup> -PAK	250	20	2.0 ... 4.0	64
IPB600N25N3 G	SP000676408	D <sup>2</sup> -PAK	250	60	2.0 ... 4.0	25
IPD600N25N3 G	SP000676404	D-PAK	250	60	2.0 ... 4.0	25
IPI200N25N3 G	SP000714308	I <sup>2</sup> -PAK	250	20	2.0 ... 4.0	64
IPI600N25N3 G	SP000714316	I <sup>2</sup> -PAK	250	60	2.0 ... 4.0	22
IPP200N25N3 G	SP000677894	TO220	250	20	2.0 ... 4.0	64
IPP600N25N3 G	SP000677832	TO220	250	60	2.0 ... 4.0	25

SMD = Surface Mounted Device

# Power Semiconductors

Type	Ordering Code	Package	Data			
			$V_{DS}$	$R_{DS(on)max}$	$V_{GS(th)}$	$I_D$
			V	mΩ	V	A

## N-Channel MOSFETs

### 400 V

BSP298	SP000088258	SOT223	400	3000	2.1 ... 4.0	0.50
BSP324	SP000089203	SOT223	400	25000	1.3 ... 2.3	0.17

### 500 V

IPA50R140CP	SP000234988	TO220 FullPAK	500	140	2.5 ... 3.5	23
SPA21N50C3	SP000216364	TO220 FullPAK	500	190	2.1 ... 3.9	21
IPA50R199CP	SP000236081	TO220 FullPAK	500	199	2.5 ... 3.5	17
IPA50R250CP	SP000236080	TO220 FullPAK	500	250	2.5 ... 3.5	13
SPA16N50C3	SP000216351	TO220 FullPAK	500	280	2.1 ... 3.9	16
IPA50R299CP	SP000236079	TO220 FullPAK	500	299	2.5 ... 3.5	12
IPA50R350CP	SP000236078	TO220 FullPAK	500	350	2.5 ... 3.5	10
SPA12N50C3	SP000216322	TO220 FullPAK	500	380	2.1 ... 3.9	11.6
IPA50R399CP	SP000234987	TO220 FullPAK	500	399	2.5 ... 3.5	9.0
IPA50R520CP	SP000236076	TO220 FullPAK	500	520	2.5 ... 3.5	7.1
SPA08N50C3	SP000216306	TO220 FullPAK	500	600	2.1 ... 3.9	7.6
SPA04N50C3	SP000216298	TO220 FullPAK	500	950	2.1 ... 3.9	4.5
IPB50R140CP	SP000212746	D <sup>2</sup> -PAK	500	140	2.5 ... 3.5	23
SPB21N50C3	SP000013833	D <sup>2</sup> -PAK	500	190	2.1 ... 3.9	21
IPB50R199CP	SP000236092	D <sup>2</sup> -PAK	500	199	2.5 ... 3.5	17
IPB50R250CP	SP000236093	D <sup>2</sup> -PAK	500	250	2.5 ... 3.5	13
SPB16N50C3	SP000014895	D <sup>2</sup> -PAK	500	280	2.1 ... 3.9	16
IPB50R299CP	SP000236094	D <sup>2</sup> -PAK	500	299	2.5 ... 3.5	12
SPB12N50C3	SP000014894	D <sup>2</sup> -PAK	500	380	2.1 ... 3.9	11.6
SPB04N50C3	SP000014477	D <sup>2</sup> -PAK	500	950	2.1 ... 3.9	4.5
IPD50R399CP	SP000307379	D-PAK	500	399	2.5 ... 3.5	9.0
IPD50R520CP	SP000307380	D-PAK	500	520	2.5 ... 3.5	7.0
SPD08N50C3	SP000307395	D-PAK	500	600	2.1 ... 3.9	7.6
SPD04N50C3	SP000313945	D-PAK	500	950	2.1 ... 3.9	4.5
SPD03N50C3	SP000307392	D-PAK	500	1400	2.1 ... 3.9	3.2
SPD02N50C3	SP000313942	D-PAK	500	3000	2.1 ... 3.9	1.8
IPI50R140CP	SP000680734	I <sup>2</sup> -PAK	500	140	2.5 ... 3.5	23
SPI21N50C3	SP000681012	I <sup>2</sup> -PAK	500	190	2.1 ... 3.9	21
IPI50R199CP	SP000523756	I <sup>2</sup> -PAK	500	199	2.5 ... 3.5	40
▼ IPI50R250CP	SP000523750	I <sup>2</sup> -PAK	500	250	2.5 ... 3.5	13
IPI50R299CP	SP000523748	I <sup>2</sup> -PAK	500	299	2.5 ... 3.5	12
SPI16N50C3	SP000681004	I <sup>2</sup> -PAK	500	280	2.1 ... 3.9	16
IPI50R350CP	SP000680736	I <sup>2</sup> -PAK	500	350	2.5 ... 3.5	10
SPI12N50C3	SP000680996	I <sup>2</sup> -PAK	500	380	2.1 ... 3.9	11.6
IPI50R399CP	SP000680738	I <sup>2</sup> -PAK	500	399	2.5 ... 3.5	9.0
SPI08N50C3	SP000680984	I <sup>2</sup> -PAK	500	600	2.1 ... 3.9	7.6
IPP50R140CP	SP000680932	TO220	500	140	2.5 ... 3.5	23
SPP21N50C3	SP000681066	TO220	500	190	2.1 ... 3.9	21
IPP50R199CP	SP000680934	TO220	500	199	2.5 ... 3.5	17
IPP50R250CP	SP000680936	TO220	500	250	2.5 ... 3.5	13
SPP16N50C3	SP000681056	TO220	500	280	2.1 ... 3.9	16
IPP50R299CP	SP000680938	TO220	500	299	2.5 ... 3.5	12
IPP50R350CP	SP000680940	TO220	500	350	2.5 ... 3.5	10
SPP12N50C3	SP000681048	TO220	500	380	2.1 ... 3.9	11.6
IPP50R399CP	SP000680942	TO220	500	399	2.5 ... 3.5	9.0

SMD = Surface Mounted Device



Type	Ordering Code	Package	Data			
			$V_{DS}$ V	$R_{DS(on)max}$ m $\Omega$	$V_{GS(th)}$ V	$I_D$ A

**N-Channel MOSFETs****500 V**  
(cont'd)

IPP50R520CP	SP000681044	TO220	500	520	2.5 ... 3.5	7.1
SPP08N50C3	SP000681038	TO220	500	600	2.1 ... 3.9	7.6
SPP04N50C3	SP000681022	TO220	500	950	2.1 ... 3.9	4.5
IPS50R520CP	SP000307420	I-PAK SL	500	520	2.5 ... 3.5	7.1
SPW52N50C3	SP000014626	TO247	500	70	2.1 ... 3.9	52
SPW32N50C3	SP000014625	TO247	500	110	2.1 ... 3.9	32
IPW50R140CP	SP000234989	TO247	500	140	2.5 ... 3.5	23
SPW21N50C3	SP000014464	TO247	500	190	2.1 ... 3.9	21
IPW50R199CP	SP000236096	TO247	500	199	2.5 ... 3.5	17
IPW50R250CP	SP000301162	TO247	500	250	2.5 ... 3.5	13
SPW16N50C3	SP000014472	TO247	500	280	2.1 ... 3.9	16
IPW50R299CP	SP000301163	TO247	500	299	2.5 ... 3.5	12
IPW50R350CP	SP000301164	TO247	500	350	2.5 ... 3.5	10
SPW12N50C3	SP000014469	TO247	500	380	2.1 ... 3.9	11.6
IPW50R399CP	SP000259980	TO247	500	399	2.5 ... 3.5	9.0
BSP299	SP000089200	SOT223	500	4000	2.1 ... 4.0	0.40

**600 V**

IPA60R125CP	SP000095275	TO220 FullPAK	600	125	2.5 ... 3.5	25
IPA60R165CP	SP000096437	TO220 FullPAK	600	165	2.5 ... 3.5	21
SPA20N60C3	SP000216354	TO220 FullPAK	600	190	2.1 ... 3.9	20.7
IPA60R199CP	SP000094146	TO220 FullPAK	600	199	2.5 ... 3.5	16
SPA20N60CFD	SP000216361	TO220 FullPAK	600	220	3.0 ... 5.0	20.7
IPA60R250CP	SP000310226	TO220 FullPAK	600	250	2.5 ... 3.5	12
SPA15N60C3	SP000216325	TO220 FullPAK	600	280	2.1 ... 3.9	15
IPA60R299CP	SP000096438	TO220 FullPAK	600	299	2.5 ... 3.5	11
SPA15N60CFD	SP000264432	TO220 FullPAK	600	330	3.0 ... 5.0	15
SPA11N60C3	SP000216312	TO220 FullPAK	600	380	2.1 ... 3.9	11
IPA60R385CP	SP000089316	TO220 FullPAK	600	385	2.5 ... 3.5	9.0
SPA11N60CFD	SP000216317	TO220 FullPAK	600	440	3.0 ... 5.0	11
IPA60R520CP	SP000405856	TO220 FullPAK	600	520	2.5 ... 3.5	6.8
IPA60R600CP	SP000405884	TO220 FullPAK	600	600	2.5 ... 3.5	6.1
SPA07N60C3	SP000216303	TO220 FullPAK	600	600	2.1 ... 3.9	7.3
SPA07N60CFD	SP000264431	TO220 FullPAK	600	700	3.0 ... 5.0	6.6
SPA06N60C3	SP000216301	TO220 FullPAK	600	750	2.1 ... 3.9	6.2
SPA04N60C3	SP000216299	TO220 FullPAK	600	950	2.1 ... 3.9	4.5
SPA03N60C3	SP000216296	TO220 FullPAK	600	1400	2.1 ... 3.9	3.2
IPB60R099CP	SP000088490	D <sup>2</sup> -PAK	600	99	2.5 ... 3.5	31
IPB60R125CP	SP000297368	D <sup>2</sup> -PAK	600	125	2.5 ... 3.5	25
IPB60R165CP	SP000096439	D <sup>2</sup> -PAK	600	165	2.5 ... 3.5	21
SPB20N60C3	SP000013520	D <sup>2</sup> -PAK	600	190	2.1 ... 3.9	20.7
IPB60R199CP	SP000223256	D <sup>2</sup> -PAK	600	199	2.5 ... 3.5	16
IPB60R250CP	SP000358140	D <sup>2</sup> -PAK	600	250	2.5 ... 3.5	12
IPB60R299CP	SP000301161	D <sup>2</sup> -PAK	600	299	2.5 ... 3.5	11
SPB11N60C3	SP000013519	D <sup>2</sup> -PAK	600	380	2.1 ... 3.9	11
IPB60R385CP	SP000228365	D <sup>2</sup> -PAK	600	385	2.5 ... 3.5	9.0
IPB60R520CP	SP000405868	D <sup>2</sup> -PAK	600	520	2.5 ... 3.5	6.8
IPB60R600CP	SP000405892	D <sup>2</sup> -PAK	600	600	2.5 ... 3.5	6.1

SMD = Surface Mounted Device

# Power Semiconductors

Type	Ordering Code	Package	Data			
			$V_{DS}$ V	$R_{DS(on)max}$ mΩ	$V_{GS(th)}$ V	$I_D$ A

## N-Channel MOSFETs

### 600 V

(cont'd)

SPB07N60C3	SP000013518	D <sup>2</sup> -PAK	600	600	2.1 ... 3.9	7.3
SPB04N60C3	SP000013533	D <sup>2</sup> -PAK	600	950	2.1 ... 3.9	4.5
SPB03N60C3	SP000013517	D <sup>2</sup> -PAK	600	1400	2.1 ... 3.9	3.2
SPB02N60C3	SP000013516	D <sup>2</sup> -PAK	600	3000	2.1 ... 3.9	1.8
IPD60R385CP	SP000680638	D-PAK	600	385	2.5 ... 3.5	9.0
IPD60R520CP	SP000405852	D-PAK	600	520	2.5 ... 3.5	6.8
IPD60R600CP	SP000680642	D-PAK	600	600	2.5 ... 3.5	6.1
SPD07N60C3	SP000313947	D-PAK	600	600	2.1 ... 3.9	7.3
SPD06N60C3	SP000307394	D-PAK	600	750	2.1 ... 3.9	6.2
SPD04N60C3	SP000313944	D-PAK	600	950	2.1 ... 3.9	4.5
SPD03N60C3	SP000308772	D-PAK	600	1400	2.1 ... 3.9	3.2
SPD02N60C3	SP000308771	D-PAK	600	3000	2.1 ... 3.9	1.8
SPD01N60C3	SP000307382	D-PAK	600	6000	2.1 ... 3.9	0.8
IPI60R099CP	SP000297356	l <sup>2</sup> -PAK	600	99	2.5 ... 3.5	31
IPI60R125CP	SP000297355	l <sup>2</sup> -PAK	600	125	2.5 ... 3.5	25
IPI60R165CP	SP000276736	l <sup>2</sup> -PAK	600	165	2.5 ... 3.5	21
SPI20N60C3	SP000681006	l <sup>2</sup> -PAK	600	190	2.1 ... 3.9	20.7
IPI60R199CP	SP000103248	l <sup>2</sup> -PAK	600	199	2.5 ... 3.5	16
SPI20N60CFD	SP000681008	l <sup>2</sup> -PAK	600	220	3.0 ... 5.0	20.7
IPI60R250CP	SP000358141	l <sup>2</sup> -PAK	600	250	2.5 ... 3.5	12
SPI15N60C3	SP000680998	l <sup>2</sup> -PAK	600	280	2.1 ... 3.9	15
IPI60R299CP	SP000103249	l <sup>2</sup> -PAK	600	299	2.5 ... 3.5	11
SPI15N60CFD	SP000681000	l <sup>2</sup> -PAK	600	330	3.0 ... 5.0	15
SPI11N60C3	SP000680986	l <sup>2</sup> -PAK	600	380	2.1 ... 3.9	11
IPI60R385CP	SP000103250	l <sup>2</sup> -PAK	600	385	2.5 ... 3.5	9.0
IPI60R520CP	SP000405872	l <sup>2</sup> -PAK	600	520	2.5 ... 3.5	6.8
IPI60R600CP	SP000405896	l <sup>2</sup> -PAK	600	600	2.5 ... 3.5	6.1
SPI11N60CFD	SP000680990	l <sup>2</sup> -PAK	600	440	3.0 ... 5.0	11
SPI07N60C3	SP000680976	l <sup>2</sup> -PAK	600	600	2.1 ... 3.9	7.3
▼ IPL60R199CP	SP000841892	ThinPAK 8x8	600	199	2.5 ... 3.5	16.4
▼ IPL60R299CP	SP000841896	ThinPAK 8x8	600	299	2.5 ... 3.5	11.1
▼ IPL60R385CP	SP000841898	ThinPAK 8x8	600	385	2.5 ... 3.5	9.0
BSP125	SP000089204	SOT223	600	45000	1.3 ... 2.3	0.12
BSP125 L6433	SP000089211	SOT223	600	45000	1.3 ... 2.3	0.12
IPP60R099CP	SP000057021	TO220	600	99	2.5 ... 3.5	31
IPP60R125CP	SP000088488	TO220	600	125	2.5 ... 3.5	25
SPP24N60C3	SP000681068	TO220	600	160	2.1 ... 3.9	24.3
IPP60R165CP	SP000084279	TO220	600	165	2.5 ... 3.5	21
SPP24N60CFD	SP000681070	TO220	600	185	3.0 ... 5.0	21.7
SPP20N60C3	SP000681058	TO220	600	190	2.1 ... 3.9	20.7
IPP60R199CP	SP000084278	TO220	600	199	2.5 ... 3.5	16
SPP20N60CFD	SP000681060	TO220	600	220	3.0 ... 5.0	20.7
IPP60R250CP	SP000358136	TO220	600	250	2.5 ... 3.5	12
SPP15N60C3	SP000681050	TO220	600	280	2.1 ... 3.9	15
IPP60R299CP	SP000084280	TO220	600	299	2.5 ... 3.5	11
SPP15N60CFD	SP000681052	TO220	600	330	3.0 ... 5.0	13.4
SPP11N60C3	SP000681040	TO220	600	380	2.1 ... 3.9	11

SMD = Surface Mounted Device

Type	Ordering Code	Package	Data			
			$V_{DS}$ V	$R_{DS(on)max}$ mΩ	$V_{GS(th)}$ V	$I_D$ A
IPP60R385CP	SP000082281	TO220	600	385	2.5 ... 3.5	9.0
SPP11N60CFD	SP000681042	TO220	600	385	3.0 ... 5.0	11
IPP60R520CP	SP000405860	TO220	600	520	2.5 ... 3.5	6.8
IPP60R600CP	SP000405888	TO220	600	600	2.5 ... 3.5	6.1
SPP07N60C3	SP000681030	TO220	600	440	2.1 ... 3.9	11
SPP07N60CFD	SP000681032	TO220	600	600	3.0 ... 5.0	7.3
SPP06N60C3	SP000681028	TO220	600	600	2.1 ... 3.9	7.3
SPP04N60C3	SP000681024	TO220	600	720	2.1 ... 3.9	7.2
SPP03N60C3	SP000681018	TO220	600	750	2.1 ... 3.9	6.2
SPP02N60C3	SP000681014	TO220	600	950	2.1 ... 3.9	4.5
SPS04N60C3	SP000307419	I-PAK SL	600	950	2.1 ... 3.9	4.5
SPS03N60C3	SP000307418	I-PAK SL	600	1400	2.1 ... 3.9	3.2
SPS02N60C3	SP000307410	I-PAK SL	600	3000	2.1 ... 3.9	1.8
SPS01N60C3	SP000307396	I-PAK SL	600	6000	2.1 ... 3.9	0.8
SPU07N60C3	SP000101635	I-PAK	600	600	2.1 ... 3.9	7.3
SPU04N60C3	SP000095850	I-PAK	600	950	2.1 ... 3.9	4.5
SPU03N60C3	SP000095849	I-PAK	600	1400	2.1 ... 3.9	3.2
SPU02N60C3	SP000015064	I-PAK	600	3000	2.1 ... 3.9	1.8
SPU01N60C3	SP000012110	I-PAK	600	6000	2.1 ... 3.9	0.8
IPW60R045CP	SP000067149	TO247	600	45	2.5 ... 3.5	60
SPW47N60C3	SP000013953	TO247	600	70	2.1 ... 3.9	47
IPW60R075CP	SP000358192	TO247	600	75	2.5 ... 3.5	39
SPW47N60CFD	SP000065376	TO247	600	80	3.0 ... 5.0	46
IPW60R099CP	SP000067147	TO247	600	99	2.5 ... 3.5	31
SPW35N60C3	SP000014970	TO247	600	100	2.1 ... 3.9	34.6
SPW35N60CFD	SP000065487	TO247	600	115	3.0 ... 5.0	34.1
IPW60R125CP	SP000088489	TO247	600	125	2.5 ... 3.5	25
SPW24N60C3	SP000014695	TO247	600	160	2.1 ... 3.9	24.3
IPW60R165CP	SP000095483	TO247	600	165	2.5 ... 3.5	21
SPW24N60CFD	SP000264428	TO247	600	185	3.0 ... 5.0	21.7
SPW20N60C3	SP000013729	TO247	600	190	2.1 ... 3.9	20.7
IPW60R199CP	SP000089802	TO247	600	199	2.5 ... 3.5	16
SPW20N60CFD	SP000014535	TO247	600	220	3.0 ... 5.0	20.7
IPW60R250CP	SP000310511	TO247	600	250	2.5 ... 3.5	12
SPW15N60C3	SP000014530	TO247	600	280	2.1 ... 3.9	15
IPW60R299CP	SP000103251	TO247	600	299	2.5 ... 3.5	11
SPW15N60CFD	SP000264429	TO247	600	330	3.0 ... 5.0	13.4
SPW11N60C3	SP000013728	TO247	600	380	2.1 ... 3.9	11
SPW11N60CFD	SP000014534	TO247	600	440	3.0 ... 5.0	11
SPW07N60CFD	SP000264430	TO247	600	700	3.0 ... 5.0	6.6
BSS127	SP000705718	SOT23	600	500000	1.4 ... 2.6	0.023
BSS225	SP000095776	SOT89	600	45000	1.3 ... 2.3	0.09

SMD = Surface Mounted Device

# Power Semiconductors

Type	Ordering Code	Package	Data			
			$V_{DS}$	$R_{DS(on)max}$	$V_{GS(th)}$	$I_D$
			V	mΩ	V	A

## N-Channel MOSFETs

### 600 V

#### C6 Series

IPA60R099C6	SP000658000	TO220 FullPAK	600	99	2.5 ... 3.5	38
IPA60R125C6	SP000685848	TO220 FullPAK	600	125	2.5 ... 3.5	30
IPA60R160C6	SP000652794	TO220 FullPAK	600	160	2.5 ... 3.5	23.8
IPA60R190C6	SP000621152	TO220 FullPAK	600	190	2.5 ... 3.5	20.2
IPA60R280C6	SP000645030	TO220 FullPAK	600	280	2.5 ... 3.5	13.8
IPA60R380C6	SP000660632	TO220 FullPAK	600	380	2.5 ... 3.5	10.6
IPA60R520C6	SP000645072	TO220 FullPAK	600	520	2.5 ... 3.5	8.1
IPA60R600C6	SP000660624	TO220 FullPAK	600	600	2.5 ... 3.5	7.3
IPA60R950C6	SP000629360	TO220 FullPAK	600	950	2.5 ... 3.5	4.4
IPB60R099C6	SP000687468	D <sup>2</sup> -PAK	600	99	2.5 ... 3.5	38
IPB60R125C6	SP000687456	D <sup>2</sup> -PAK	600	125	2.5 ... 3.5	30
IPB60R160C6	SP000687552	D <sup>2</sup> -PAK	600	160	2.5 ... 3.5	23.8
IPB60R190C6	SP000641916	D <sup>2</sup> -PAK	600	190	2.5 ... 3.5	20.2
IPB60R280C6	SP000687550	D <sup>2</sup> -PAK	600	280	2.5 ... 3.5	13.8
IPB60R380C6	SP000660634	D <sup>2</sup> -PAK	600	380	2.5 ... 3.5	10.6
IPB60R600C6	SP000660626	D <sup>2</sup> -PAK	600	600	2.5 ... 3.5	7.3
IPB60R950C6	SP000660620	D <sup>2</sup> -PAK	600	950	2.5 ... 3.5	4.4
IPD60R380C6	SP000748518	D-PAK	600	380	2.5 ... 3.5	10.6
IPD60R520C6	SP000645070	D-PAK	600	520	2.5 ... 3.5	8.1
IPD60R600C6	SP000660622	D-PAK	600	600	2.5 ... 3.5	7.3
IPD60R950C6	SP000629368	D-PAK	600	950	2.5 ... 3.5	12
▼ IPD60R1K4C6	SP000799134	D-PAK	600	1400	2.5 ... 3.5	3.2
▼ IPD60R2K0C6	SP000799132	D-PAK	600	2000	2.5 ... 3.5	2.4
▼ IPD60R3K3C6	SP000799130	D-PAK	600	3300	2.5 ... 3.5	1.7
IPI60R190C6	SP000660618	I <sup>2</sup> -PAK	600	190	2.5 ... 3.5	20.2
IPI60R280C6	SP000687554	I <sup>2</sup> -PAK	600	280	2.5 ... 3.5	10.6
IPI60R380C6	SP000660630	I <sup>2</sup> -PAK	600	380	2.5 ... 3.5	10.6
IPP60R099C6	SP000687556	TO220	600	99	2.5 ... 3.5	38
IPP60R125C6	SP000685844	TO220	600	125	2.5 ... 3.5	30
IPP60R160C6	SP000652796	TO220	600	160	2.5 ... 3.5	23.8
IPP60R190C6	SP000621158	TO220	600	190	2.5 ... 3.5	20.2
IPP60R280C6	SP000645028	TO220	600	280	2.5 ... 3.5	13.8
IPP60R380C6	SP000645062	TO220	600	380	2.5 ... 3.5	10.6
IPP60R520C6	SP000645068	TO220	600	520	2.5 ... 3.5	8.1
IPP60R600C6	SP000645074	TO220	600	600	2.5 ... 3.5	7.3
IPP60R950C6	SP000629364	TO220	600	950	2.5 ... 3.5	4.4
IPW60R070C6	SP000645060	TO247	600	70	2.5 ... 3.5	159
IPW60R099C6	SP000641908	TO247	600	99	2.5 ... 3.5	38
IPW60R125C6	SP000641912	TO247	600	125	2.5 ... 3.5	30
IPW60R160C6	SP000652798	TO247	600	160	2.5 ... 3.5	23.8
IPW60R190C6	SP000621160	TO247	600	190	2.5 ... 3.5	20.2
IPW60R280C6	SP000645032	TO247	600	280	2.5 ... 3.5	13.8

SMD = Surface Mounted Device

Type	Ordering Code	Package	Data			
			$V_{DS}$ V	$R_{DS(on)max}$ mΩ	$V_{GS(th)}$ V	$I_D$ A

**N-Channel MOSFETs****600 V  
E6 Series**

▼ IPA60R190E6	SP000797380	TO220 FullPAK	600	190	2.5 ... 3.5	20.2
▼ IPA60R280E6	SP000797292	TO220 FullPAK	600	280	2.5 ... 3.5	13.8
▼ IPA60R380E6	SP000795300	TO220 FullPAK	600	380	2.5 ... 3.5	10.6
▼ IPA60R450E6	SP000842484	TO220 FullPAK	600	450	2.5 ... 3.5	9.2
▼ IPA60R520E6	SP000797614	TO220 FullPAK	600	520	2.5 ... 3.5	8.1
▼ IPA60R600E6	SP000797298	TO220 FullPAK	600	600	2.5 ... 3.5	7.3
▼ IPA60R750E6	SP000842480	TO220 FullPAK	600	750	2.5 ... 3.5	5.7
▼ IPD60R450E6	SP000801092	D-PAK	600	450	2.5 ... 3.5	9.2
▼ IPD60R750E6	SP000801094	D-PAK	600	750	2.5 ... 3.5	5.7
▼ IPP60R190E6	SP000797378	TO220	600	190	2.5 ... 3.5	20.2
▼ IPP60R280E6	SP000797290	TO220	600	280	2.5 ... 3.5	13.8
▼ IPP60R380E6	SP000795310	TO220	600	380	2.5 ... 3.5	10.6
▼ IPP60R450E6	SP000842486	TO220	600	450	2.5 ... 3.5	9.2
▼ IPP60R520E6	SP000797294	TO220	600	520	2.5 ... 3.5	8.1
▼ IPP60R600E6	SP000797630	TO220	600	600	2.5 ... 3.5	7.3
▼ IPP60R750E6	SP000842482	TO220	600	750	2.5 ... 3.5	5.7
▼ IPW60R190E6	SP000797384	TO247	600	190	2.5 ... 3.5	20.2
▼ IPW60R280E6	SP000797382	TO247	600	280	2.5 ... 3.5	13.8

**650 V**

SPA20N65C3	SP000216362	TO220 FullPAK	650	190	2.1 ... 3.9	20.7
SPA15N65C3	SP000293730	TO220 FullPAK	650	280	2.1 ... 3.9	15
SPA11N65C3	SP000216318	TO220 FullPAK	650	380	2.1 ... 3.9	11
SPA07N65C3	SP000216305	TO220 FullPAK	650	600	2.1 ... 3.9	7.3
SPI20N65C3	SP000681010	I <sup>2</sup> -PAK	650	190	2.1 ... 3.9	20.7
SPI15N65C3	SP000681002	I <sup>2</sup> -PAK	650	280	2.1 ... 3.9	15
SPI11N65C3	SP000680994	I <sup>2</sup> -PAK	650	380	2.1 ... 3.9	11
SPI07N65C3	SP000680982	I <sup>2</sup> -PAK	650	600	2.1 ... 3.9	7.3
SPP20N65C3	SP000681064	TO220 FullPAK	650	190	2.1 ... 3.9	20.7
SPP15N65C3	SP000681054	TO220 FullPAK	650	280	2.1 ... 3.9	15
SPP11N65C3	SP000681046	TO220 FullPAK	650	380	2.1 ... 3.9	11
SPP07N65C3	SP000681036	TO220 FullPAK	650	600	2.1 ... 3.9	7.3
SPW47N65C3	SP000274751	TO247	650	70	2.1 ... 3.9	47

**650 V  
C6 Series**

▼ IPA65R190C6	SP000863892	TO220 FullPAK	650	190	2.5 ... 3.5	20.2
▼ IPA65R280C6	SP000720898	TO220 FullPAK	650	280	2.5 ... 3.5	13.8
▼ IPA65R380C6	SP000720896	TO220 FullPAK	650	380	2.5 ... 3.5	10.6
▼ IPA65R600C6	SP000850502	TO220 FullPAK	650	600	2.5 ... 3.5	7.3
▼ IPB65R190C6	SP000863890	D <sup>2</sup> -PAK	650	190	2.5 ... 3.5	20.2
▼ IPB65R280C6	SP000745030	D <sup>2</sup> -PAK	650	280	2.5 ... 3.5	13.8
▼ IPB65R380C6	SP000785084	D <sup>2</sup> -PAK	650	380	2.5 ... 3.5	10.6
▼ IPB65R600C6	SP000794382	D <sup>2</sup> -PAK	650	600	2.5 ... 3.5	7.3

SMD = Surface Mounted Device

# Power Semiconductors

Type	Ordering Code	Package	Data			
			$V_{DS}$	$R_{DS(on)max}$	$V_{GS(th)}$	$I_D$
			V	mΩ	V	A

## N-Channel MOSFETs

### 650 V C6 Series (cont'd)

▼ IPD65R380C6	SP000745022	D-PAK	650	380	2.5 ... 3.5	10.6
▼ IPD65R600C6	SP000745020	D-PAK	650	600	2.5 ... 3.5	7.3
▼ IPI65R190C6	SP000863900	l <sup>2</sup> -PAK	650	190	2.5 ... 3.5	20.2
▼ IPI65R280C6	SP000785056	l <sup>2</sup> -PAK	650	280	2.5 ... 3.5	13.8
▼ IPI65R380C6	SP000785080	l <sup>2</sup> -PAK	650	380	2.5 ... 3.5	10.6
▼ IPI65R600C6	SP000850504	l <sup>2</sup> -PAK	650	600	2.5 ... 3.5	7.3
▼ IPP65R280C6	SP000785058	TO220	650	280	2.5 ... 3.5	13.8
▼ IPP65R380C6	SP000795082	TO220	650	380	2.5 ... 3.5	10.6
▼ IPP65R600C6	SP000661310	TO220	650	600	2.5 ... 3.5	7.3
▼ IPW65R070C6	SP000745034	TO247	650	70	2.5 ... 3.5	159
▼ IPW65R190C6	SP000863902	TO247	600	190	2.5 ... 3.5	20.2
▼ IPW65R280C6	SP000785060	TO247	600	280	2.5 ... 3.5	13.8

### 650 V E6 Series

▼ IPA65R190E6	SP000863904	TO220 FullPAK	650	190	2.5 ... 3.5	20.2
▼ IPA65R280E6	SP000795276	TO220 FullPAK	650	280	2.5 ... 3.5	13.8
▼ IPA65R380E6	SP000795282	TO220 FullPAK	650	380	2.5 ... 3.5	10.6
▼ IPA65R600E6	SP000799140	TO220 FullPAK	650	600	2.5 ... 3.5	7.3
▼ IPB65R280E6	SP000795274	D <sup>2</sup> -PAK	650	280	2.5 ... 3.5	13.8
▼ IPB65R380E6	SP000785286	D <sup>2</sup> -PAK	650	380	2.5 ... 3.5	10.6
▼ IPD65R380E6	SP000795278	D-PAK	650	380	2.5 ... 3.5	10.6
▼ IPD65R600E6	SP000800216	D-PAK	650	600	2.5 ... 3.5	7.3
▼ IPI65R280E6	SP000795270	l <sup>2</sup> -PAK	650	280	2.5 ... 3.5	13.8
▼ IPI65R380E6	SP000795284	l <sup>2</sup> -PAK	650	380	2.5 ... 3.5	10.6
▼ IPP65R280E6	SP000795268	TO220	650	280	2.5 ... 3.5	13.8
▼ IPP65R380E6	SP000795080	TO220	650	380	2.5 ... 3.5	10.6
▼ IPP65R600E6	SP000850500	TO220	650	600	2.5 ... 3.5	7.3
▼ IPW65R280E6	SP000795272	TO247	600	280	2.5 ... 3.5	13.8

SMD = Surface Mounted Device

Type	Ordering Code	Package	Data			
			$V_{DS}$ V	$R_{DS(on)max}$ mΩ	$V_{GS(th)}$ V	$I_D$ A

**N-Channel MOSFETs****800 V**

BSP300	SP000089201	SOT223	800	20	2.1 ... 4.0	0.19
SPA17N80C3	SP000216353	TO220 FullPAK	800	290	2.1 ... 3.9	17
SPA11N80C3	SP000216320	TO220 FullPAK	800	450	2.1 ... 3.9	11
SPA08N80C3	SP000216310	TO220 FullPAK	800	650	2.1 ... 3.9	8
SPA06N80C3	SP000216302	TO220 FullPAK	800	900	2.1 ... 3.9	6
SPA04N80C3	SP000216300	TO220 FullPAK	800	1300	2.1 ... 3.9	4
SPA02N80C3	SP000216295	TO220 FullPAK	800	2700	2.1 ... 3.9	2
SPB17N80C3	SP000013370	D <sup>2</sup> -PAK	800	290	2.1 ... 3.9	17
SPD06N80C3	SP000318350	D-PAK	800	900	2.1 ... 3.9	6
SPD04N80C3	SP000315410	D-PAK	800	1300	2.1 ... 3.9	4
SPD02N80C3	SP000315409	D-PAK	800	2700	2.1 ... 3.9	2
SPI08N80C3	SP000683148	I <sup>2</sup> -PAK	800	650	2.1 ... 3.9	8
SPP17N80C3	SP000683164	TO220	800	290	2.1 ... 3.9	17
SPP11N80C3	SP000683158	TO220	800	450	2.1 ... 3.9	11
SPP08N80C3	SP000683156	TO220	800	650	2.1 ... 3.9	8
SPP06N80C3	SP000683154	TO220	800	900	2.1 ... 3.9	6
SPP04N80C3	SP000683152	TO220	800	1300	2.1 ... 3.9	4
SPP02N80C3	SP000683150	TO220	800	2700	2.1 ... 3.9	2
SPW17N80C3	SP000013369	TO247	800	290	2.1 ... 3.9	17
SPW11N80C3	SP000013703	TO247	800	450	2.1 ... 3.9	11

**900 V**

IPA90R340C3	SP000415916	TO220 FullPAK	900	340	2.5 ... 3.5	15
IPA90R500C3	SP000413716	TO220 FullPAK	900	500	2.5 ... 3.5	10
IPA90R800C3	SP000413718	TO220 FullPAK	900	800	2.5 ... 3.5	6.7
IPA90R1K0C3	SP000413712	TO220 FullPAK	900	1000	2.5 ... 3.5	5.7
IPA90R1K2C3	SP000413714	TO220 FullPAK	900	1200	2.5 ... 3.5	5.1
IPD90R1K2C3	SP000413720	D-PAK	900	1200	2.5 ... 3.5	5.1
IPI90R340C3	SP000683082	I <sup>2</sup> -PAK	900	340	2.5 ... 3.5	15
IPI90R500C3	SP000683084	I <sup>2</sup> -PAK	900	500	2.5 ... 3.5	10
IPI90R800C3	SP000683086	I <sup>2</sup> -PAK	900	800	2.5 ... 3.5	6.7
IPI90R1K0C3	SP000683078	I <sup>2</sup> -PAK	900	1000	2.5 ... 3.5	5.7
IPI90R1K2C3	SP000683080	I <sup>2</sup> -PAK	900	1200	2.5 ... 3.5	5.1
IPP90R340C3	SP000683098	TO220	900	340	2.5 ... 3.5	15
IPP90R500C3	SP000683100	TO220	900	500	2.5 ... 3.5	10
IPP90R800C3	SP000683102	TO220	900	800	2.5 ... 3.5	6.7
IPP90R1K0C3	SP000683094	TO220	900	1000	2.5 ... 3.5	5.8
IPP90R2K2C3	SP000683096	TO220	900	1200	2.5 ... 3.5	5.1
IPW90R120C3	SP000413750	TO247	900	120	2.5 ... 3.5	36
IPW90R340C3	SP000411306	TO247	900	340	2.5 ... 3.5	15
IPW90R500C3	SP000413756	TO247	900	500	2.5 ... 3.5	10
IPW90R800C3	SP000413758	TO247	900	800	2.5 ... 3.5	6.7
IPW90R1K0C3	SP000413752	TO247	900	1000	2.5 ... 3.5	5.8
IPW90R1K2C3	SP000413754	TO247	900	1200	2.5 ... 3.5	5.1

SMD = Surface Mounted Device

# Power Semiconductors

Type	Ordering Code	Package	Data			
			$V_{DS}$ V	$R_{DS(on)}$ mΩ	$V_{GS(th)}$ V	$I_D$ A

## P-Channel MOSFETs

### 250 V

BSP317P	SP000089220	SOT223	-250	4000	-2.0 ... -1.0	-0.43
BSP92P	SP000089223	SOT223	-250	12000	-2.0 ... -1.0	-0.26
BSR92P	SP000265408	SC59	-250	11000	-2.0 ... -1.0	-0.14
BSS192P	SP000095795	SOT89	-250	12000	-2.0 ... -0.8	-0.19

### 100 V

BSP322P	SP000212229	SOT223	-100	800	-2.0 ... -1.0	-1.0
BSP321P	SP000212228	SOT223	-100	900	-4.0 ... -2.1	-0.98
BSP316P	SP000089222	SOT223	-100	1800	-2.0 ... -1.0	-0.68
BSR316P	SP000265407	SC59	-100	1800	-2.0 ... -1.0	-0.36
SPD15P06PL G	SP000317393	D-PAK	-100	200	-2.0 ... -1.0	-15
SPD15P06P G	SP000212233	D-PAK	-100	240	-4.0 ... -2.1	-15
SPD04P06PL G	SP000212231	D-PAK	-100	850	-2.0 ... -1.0	-4.2
SPD04P06P G	SP000212230	D-PAK	-100	1000	-4.0 ... -2.1	-4.0
▼ SPP15P10PL H	SP000683162	TO220	-100	200	-2.0 ... -1.0	-15
▼ SPP15P10P H	SP000683160	TO220	-100	240	-4.0 ... -2.1	-15

### 60 V

BSO613SPV G	SP000216309	SO-8	-60	130	-4.0 ... -2.1	-3.44
BSP613P	SP000089224	SOT223	-60	130	-4.0 ... -2.1	-2.9
BSP170P	SP000089225	SOT223	-60	300	-4.0 ... -2.1	-1.9
BSP171P	SP000089226	SOT223	-60	300	-2.0 ... -1.0	-1.9
BSP315P	SP000089221	SOT223	-60	800	-2.0 ... -1.0	-1.17
BSS83P	SP000247311	SOT23	-60	2000	-2.0 ... -1.0	-0.33
▼ BSS84P	SP000702496	SOT23	-60	8000	-2.0 ... -1.0	-0.17
BSS84P L6433	SP000247309	SOT23	-60	8000	-2.0 ... -1.0	-0.17
BSS84PW	SP000247312	SOT323	-60	8000	-2.0 ... -1.0	-0.15
BSR315P	SP000265405	SC59	-60	800	-2.0 ... -1.0	-0.62
SPB80P06P G	SP000096088	D <sup>2</sup> -PAK	-60	23	-4.0 ... -2.1	-80
SPB18P06P G	SP000102181	D <sup>2</sup> -PAK	-60	130	-4.0 ... -2.1	-18.6
SPB08P06P G	SP000102179	D <sup>2</sup> -PAK	-60	300	-4.0 ... -2.1	-8.8
SPD30P06P G	SP000441776	D-PAK	-60	75	-4.0 ... -2.1	-30
SPD18P06P G	SP000443926	D-PAK	-60	130	-4.0 ... -2.1	-18.6
SPD09P06PL G	SP000443928	D-PAK	-60	250	-2.0 ... -1.0	-9.7
SPD08P06P G	SP000450534	D-PAK	-60	300	-4.0 ... -2.1	-8.8
▼ SPP80P06P H	SP000441774	TO220	-60	23	-4.0 ... -2.1	-80
▼ SPP18P06P H	SP000446906	TO220	-60	130	-4.0 ... -2.1	-18.6
▼ SPP08P06P H	SP000446908	TO220	-60	300	-4.0 ... -2.1	-8.8

SMD = Surface Mounted Device



Type	Ordering Code	Package	Data			
			$V_{DS}$ V	$R_{DS(on)}$ mΩ	$V_{GS(th)}$ V	$I_D$ A

**P-Channel MOSFETs****30 V**

BSC030P03NS3 G	SP000442470	SuperSO8	-30	3	-3.1 ... -1.9	-100
BSC060P03NS3E G	SP000472984	SuperSO8	-30	6	-3.1 ... -1.9	-100
BSC080P03LS G	SP000359664	SuperSO8	-30	8	-2.2 ... -1.0	-30
BSC084P03NS3 G	SP000473020	SuperSO8	-30	8.4	-3.1 ... -1.9	-78.6
▼ BSC084P03NS3E G	SP000473012	SuperSO8	-30	8.4	-3.0 ... -2.0	-78.6
BSC130P03LS G	SP000359666	SuperSO8	-30	13	-2.2 ... -1.0	-22.5
BSC200P03LS G	SP000359668	SuperSO8	-30	20	-2.2 ... -1.0	-12.5
BSD314SPE	SP000473008	SOT363	-30	140	-1.0 ... -2.0	-1.5
BSL307SP	SP000095798	TSOP6	-30	43	-2.0 ... -1.0	-5.5
BSL308PE	SP000472978	TSOP6 dual	-30	80	-2.0 ... -1.0	-2.1
BSL314PE	SP000473004	TSOP6	-30	140	-1.0 ... -2.0	-1.5
BSL315P	SP000442408	TSOP6 dual	-30	150	-2.0 ... -1.0	-1.5
BSO080P03NS3 G	SP000472996	SO-8	-30	8	-3.1 ... -1.9	-14.8
BSO080P03NS3E G	SP000472992	SO-8	-30	8	-3.1 ... -1.9	-14.8
▼ BSO080P03S H	SP000613798	SO-8	-30	8	-2.1 ... -2.0	-1.0
▼ BSO301SP H	SP000613796	SO-8	-30	8	-2.0 ... -1.0	-14.9
▼ BSO130P03S H	SP000613860	SO-8	-30	13	-2.2 ... -1.0	-11.3
▼ BSO200P03S H	SP000613854	SO-8	-30	20	-2.2 ... -1.0	-9.1
▼ BSO303P H	SP000012622	SO-8 dual	-30	21	-2.0 ... -1.0	-8.2
▼ BSO303SP H	SP000613848	SO-8	-30	21	-2.0 ... -1.0	-8.9
BSS308PE	SP000442474	SOT23	-30	80	-2.0 ... -1.0	-2.1
BSS314PE	SP000473000	SOT23	-30	140	-1.0 ... -2.0	-1.5
BSS315P	SP000442440	SOT23	-30	150	-2.0 ... -1.0	-1.5
BSZ086P03NS3 G	SP000473024	S3O8	-30	8.6	-3.1 ... -1.9	-40
BSZ086P03NS3E G	SP000473016	S3O8	-30	8.6	-3.1 ... -1.9	-40
▼ BSZ120P03NS3 G	SP000709736	S3O8	-30	12	-3.1 ... -1.9	-40
▼ BSZ120P03NS3E G	SP000709730	S3O8	-30	12	-3.1 ... -1.9	-40
▼ BSZ180P03NS3 G	SP000709744	S3O8	-30	18	-3.1 ... -1.9	-39.6
▼ BSZ180P03NS3E G	SP000709740	S3O8	-30	18	-3.1 ... -1.9	-39.6
IPD042P03L3 G	SP000473922	D-PAK	-30	4.2	-2.0 ... -1.0	-70
▼ IPD068P03L3 G	SP000472988	D-PAK	-30	6.8	-2.0 ... -1.0	-70
SPD50P03L G	SP000371908	D-PAK 5pin	-30	7	-2.0 ... -1.0	-50

**20 V**

▼ BSO201SP H	SP000613828	SO-8	-20	8	-1.2 ... -0.6	-14.9
▼ BSO203P H	SP000613858	SO-8 dual	-20	21	-1.2 ... -0.6	-8.2
▼ BSO203SP H	SP000613856	SO-8	-20	21	-1.2 ... -0.6	-9.0
BSO204P	SP000013487	SO-8 dual	-20	30	-1.2 ... -0.6	-7.0
▼ BSO207P H	SP000613832	SO-8 dual	-20	45	-1.2 ... -0.6	-5.7
▼ BSO211P H	SP000613844	SO-8 dual	-20	67	-1.2 ... -0.6	-4.7
BSL207SP	SP000095796	TSOP6	-20	41	-1.2 ... -0.6	-6.0
BSL211SP	SP000095797	TSOP6	-20	67	-1.2 ... -0.6	-4.7
BSL215P	SP000442422	TSOP6 dual	-20	150	-1.2 ... -0.6	-1.5
BSS215P	SP000442446	SOT23	-20	150	-1.2 ... -0.6	-1.5
BSS209PW	SP000245422	SOT323	-20	550	-1.2 ... -0.6	-0.58
BSS223PW	SP000245423	SOT323	-20	1200	-1.2 ... -0.6	-0.39
BSV236SP	SP000245421	SOT363	-20	175	-1.2 ... -0.6	-1.5
BSD223P	SP000245417	SOT363 dual	-20	1200	-1.2 ... -0.6	-0.35

SMD = Surface Mounted Device

# Power Semiconductors

Type	Ordering Code	Package	Data			
			$V_{DS}$	$R_{DS(on)}$	$V_{GS(th)}$	$I_D$
			V	mΩ	V	A

## Complementary MOSFETs

### 20/-20 V

BSD235C	SP000442466	SOT363	20	350	-1.2 ... -0.6	0.95
			-20	1200	0.7 ... 1.2	-0.53
BSL215C	SP000442436	TSOP6	20	140	0.7 ... 1.2	1.5
			-20	150	-1.2 ... -0.6	-1.5

### 30/-30 V

▼ BSL308C	SP000473910	TSOP6	30	57	1.2 ... 1.6	2.3
			-30	80	-2.0 ... -1.5	-2.0
BSL316C	SP000442412	TSOP6	30	160	1.2 ... 2.0	1.4
			-30	150	-2.0 ... -1.0	-1.5

### 60/-60 V

BSO612CV G	SP000216307	SO-8	60	120	2.1 ... 4.0	3
			-60	300	-4.0 ... -2.1	-2
BSO615C G	SP000216311	SO-8	60	110	1.2 ... 2.0	3.1
			-60	300	-2.0 ... -1.0	-2

SMD = Surface Mounted Device

Type	Ordering Code	Package	Data			
			$V_{DS}$	$R_{DS(on)}$	$V_{GS(th)}$	$I_D$
			V	mΩ	V	A

**Depletion MOSFETs****60 V**

▼ BSS159N H	SP000639076	SOT23	60	8000	-3.5 ... -2.4	0.13
▼ BSS159N H6906	SP000702636	SOT23	60	8000	-3.5 ... -2.4	0.13

**100 V**

BSS169	SP000247299	SOT23	100	12000	-2.9 ... -1.8	0.09
BSS169 L6906	SP000702582	SOT23	100	12000	-2.9 ... -1.8	0.09

**200 V**

BSP149	SP000089214	SOT223	200	3500	-2.1 ... -1.0	0.14
BSP149 L6906	SP000089215	SOT223	200	3500	-2.1 ... -1.0	0.14

**240 V**

BSP129	SP000089218	SOT223	240	6000	-2.1 ... -1.0	0.05
BSP129 L6906	SP000089219	SOT223	240	6000	-2.1 ... -1.0	0.05

**250 V**

BSS139	SP000247295	SOT23	250	30000	-2.1 ... -1.0	0.03
BSS139 L6906	SP000247296	SOT23	250	30000	-2.1 ... -1.0	0.03

**600 V**

BSP135	SP000089206	SOT223	600	6000	-2.1 ... -1.0	0.02
▼ BSP135 L6433	SP000432430	SOT223	600	6000	-2.1 ... -1.0	0.02
BSP135 L6906	SP000089207	SOT223	600	6000	-2.1 ... -1.0	0.02
▼ BSS126 H	SP000705714	SOT23	600	700000	-2.7 ... -1.6	0.007
▼ BSS126 H6906	SP000705716	SOT23	600	700000	-2.7 ... -1.6	0.007

SMD = Surface Mounted Device

# Power Semiconductors

Type	Ordering Code	Package	Data			
			$V_{CE}$	$I_C$	$I_C$ (pulse) (max)	$V_{CE}$ (sat) (typ)
			V	A	A	V

## IGBT Power Transistors

### Fast IGBT Single Version 600 V

SGB02N60	SP000011978	D <sup>2</sup> -PAK	600	2	12	2.2
SGB06N60	SP000011980	D <sup>2</sup> -PAK	600	6	24	2.3
SGB10N60A	SP000013790	D <sup>2</sup> -PAK	600	10	40	2.3
SGB15N60	SP000011983	D <sup>2</sup> -PAK	600	15	62	2.3
SGB20N60	SP000011984	D <sup>2</sup> -PAK	600	20	80	2.4
SGB30N60	SP000011985	D <sup>2</sup> -PAK	600	30	112	2.5
SGD02N60	SP000011993	D-PAK	600	2	12	2.2
SGD04N60	SP000011994	D-PAK	600	4	9.4	2.3
SGD06N60	SP000011995	D-PAK	600	6	9.6	2.3
SGP02N60	SP000683108	TO220	600	2	12	2.2
SGP04N60	SP000683110	TO220	600	4	19	2.3
SGP06N60	SP000683112	TO220	600	6	24	2.3
SGP10N60A	SP000683118	TO220	600	10	40	2.3
SGP15N60	SP000683124	TO220	600	15	62	2.3
SGP20N60	SP000683126	TO220	600	20	80	2.4
SGP30N60	SP000683130	TO220	600	30	112	2.5
SGW10N60A	SP000013742	TO247	600	10	40	2.3
SGW15N60	SP000012465	TO247	600	15	62	2.3
SGW20N60	SP000012466	TO247	600	20	80	2.4
SGW30N60	SP000012467	TO247	600	30	41	2.5

### 1200 V

SGB02N120	SP000012558	D <sup>2</sup> -PAK	1200	12	9.6	3.7
SGB07N120	SP000012559	D <sup>2</sup> -PAK	1200	7	27	3.7
SGB15N120	SP000012560	D <sup>2</sup> -PAK	1200	15	52	3.7
SGD02N120	SP000012566	D-PAK	1200	2	9.6	3.7
SGL02N120	SP000683104	I <sup>2</sup> -PAK	1200	2	9.6	3.7
SGP02N120	SP000683106	TO220	1200	2	9.6	3.7
SGP07N120	SP000683116	TO220	1200	7	27	3.7
SGP15N120	SP000683122	TO220	1200	15	52	3.7
SGW15N120	SP000012564	TO247	1200	15	52	3.1
SGW25N120	SP000012565	TO247	1200	25	84	3.1

SMD = Surface Mounted Device

Type	Ordering Code	Package	Data			
			$V_{CE}$	$I_C$	$I_C$ (pulse) (max)	$V_{CE(sat)}$ (typ)
			V	A	A	V

**IGBT Power Transistors****Fast DuoPack (IGBT + Emitter Controlled Diode)  
600 V**

SKA06N60	SP000215379	TO220 FullPAK	600	6	24	2.3
SKB02N60	SP000012416	D <sup>2</sup> -PAK	600	2	12	2.2
▼ SKB02N60 E3266	SP000012417	D <sup>2</sup> -PAK	600	2	12	2.2
SKB04N60	SP000012425	D <sup>2</sup> -PAK	600	4	19	2.3
SKB06N60	SP000012427	D <sup>2</sup> -PAK	600	6	24	2.3
SKB10N60A	SP000013740	D <sup>2</sup> -PAK	600	10	40	2.3
SKB15N60	SP000012429	D <sup>2</sup> -PAK	600	15	62	2.0
▼ SKB15N60 E8151	SP000012430	D <sup>2</sup> -PAK	600	15	62	2.0
SKP02N60	SP000683136	TO220	600	2	12	2.2
SKP04N60	SP000683138	TO220	600	4	19	2.0
SKP06N60	SP000683140	TO220	600	6	24	2.3
SKP10N60A	SP000683144	TO220	600	10	40	2.3
SKP15N60	SP000683146	TO220	600	15	62	2.3
SKW15N60	SP000012482	TO247	600	15	62	2.3
SKW20N60	SP000012483	TO247	600	20	80	2.4
SKW30N60	SP000012484	TO247	600	30	112	2.5

**1200 V**

SKB02N120	SP000012567	D <sup>2</sup> -PAK	1200	2	9.6	3.1
SKP02N120	SP000683134	TO220	1200	2	9.6	3.7
SKW07N120	SP000012569	TO247	1200	8	27	3.1
SKW15N120	SP000012570	TO247	1200	15	52	3.1
SKW25N120	SP000012571	TO247	1200	25	84	3.1

SMD = Surface Mounted Device

# Power Semiconductors

Type	Ordering Code	Package	Data			
			$V_{CE}$	$I_C$	$I_C$ (pulse) (max)	$V_{CE}$ (sat) (typ)
			V	A	A	V

## IGBT Power Transistors

### High Speed Single Version 600 V

SGB15N60HS	SP000014134	D <sup>2</sup> -PAK	600	15	60	2.8
SGB15N60HS	SP000267909	D <sup>2</sup> -PAK	600	15	60	2.8
SGP20N60HS	SP000683128	TO220	600	20	80	3.5
SGP30N60HS	SP000683132	TO220	600	30	112	3.5
SGW20N60HS	SP000013771	TO247	600	20	36	2.8
SGW30N60HS	SP000013770	TO247	600	30	112	2.8
SGW50N60HS	SP000089248	TO247	600	50	150	2.8

### High Speed-2 1200 V

IGA03N120H2	SP000215371	TO220 FullPAK	1200	3	9	2.5
IGB01N120H2	SP000014614	D <sup>2</sup> -PAK	1200	1	3.5	2.5
IGB03N120H2	SP000014616	D <sup>2</sup> -PAK	1200	3	9.9	2.5
IGD01N120H2	SP000014523	D-PAK	1200	1	3.5	2.5
IGP01N120H2	SP000683036	TO220	1200	1	3.5	2.5
IGP03N120H2	SP000683038	TO220	1200	3	9.9	2.5
IGW03N120H2	SP000014182	TO247	1200	3	9.9	2.2

### High Speed DuoPack (IGBT + Emitter Controlled Diode) 600 V

SKB06N60HS	SP000014222	D <sup>2</sup> -PAK	600	6	24	2.8
SKB15N60HS	SP000014221	D <sup>2</sup> -PAK	600	15	60	2.8
SKW20N60HS	SP000013772	TO247	600	20	80	2.8
SKW30N60HS	SP000013744	TO247	600	30	112	2.8

### High Speed-2 DuoPack, 2nd generation (IGBT + Emitter Controlled Diode) 1200 V

IKA03N120H2	SP000215373	TO220 FullPAK	1200	3	9	2.5
IKB03N120H2	SP000014272	D <sup>2</sup> -PAK	1200	3	9.9	2.5
IKP01N120H2	SP000683050	TO220	1200	1	3.5	2.5
IKP03N120H2	SP000683052	TO220	1200	3	9.9	2.5
IKW03N120H2	SP000014181	TO247	1200	3	9.9	2.2

SMD = Surface Mounted Device

Type	Ordering Code	Package	Data			
			$V_{CE}$ V	$I_C$ A	$I_C$ (pulse) (max) A	$V_{CE(sat)}$ (typ) V

**IGBT Power Transistors****High Speed-3, 3rd generation  
600 V**

▼ IGA30N00H3	SP000853272	TO220 FullPAK	600	30	120	1.95
▼ IGB20N60H3	SP000852232	D <sup>2</sup> -PAK	600	20	80	1.95
▼ IGB30N60H3	SP000852240	D <sup>2</sup> -PAK	600	30	120	1.95
▼ IGP20N60H3	SP000702544	TO220	600	20	80	1.95
▼ IGP30N60H3	SP000702546	TO220	600	30	120	1.95
▼ IGW20N60H3	SP000852238	TO247	600	20	80	1.95
▼ IGW30N60H3	SP000852242	TO247	600	30	120	1.95
▼ IGW40N60H3	SP000769926	TO247	600	40	160	1.95
▼ IGW50N60H3	SP000702548	TO247	600	50	200	1.85

**High Speed-3, 3rd generation  
1200 V**

IGW15N120H3	SP000674430	TO247	1200	15	60	2.05
IGW25N120H3	SP000674424	TO247	1200	25	100	2.05
IGW40N120H3	SP000667510	TO247	1200	40	160	2.05

**High Speed-3 DuoPack, 3rd generation (IGBT + Emitter Controlled Diode)  
600 V**

▼ IKB20N60H3	SP0000852234	D <sup>2</sup> -PAK	600	20	80	1.95
▼ IKP20N60H3	SP0000852236	TO220	600	20	80	1.95
▼ IKW20N60H3	SP0000702556	TO247	600	20	80	1.95
▼ IKW30N60H3	SP0000703042	TO247	600	30	120	1.95
▼ IKW40N60H3	SP0000769928	TO247	600	40	160	1.95
▼ IKW50N60H3	SP0000852244	TO247	600	50	200	1.85

**High Speed-3 DuoPack, 3rd generation (IGBT + Emitter Controlled Diode)  
1200 V**

IKW15N120H3	SP000674422	TO247	1200	15	60	2.05
IKW25N120H3	SP000674418	TO247	1200	25	100	2.05
IKW40N120H3	SP000674416	TO247	1200	40	160	2.05

SMD = Surface Mounted Device

# Power Semiconductors

Type	Ordering Code	Package	Data			
			$V_{CE}$	$I_C$	$I_C$ (pulse) (max)	$V_{CE}$ (sat) (typ)
			V	A	A	V

## IGBT Power Transistors

### TRENCHSTOP™ Single Version 600 V

IGB10N60T	SP000456678	D <sup>2</sup> -PAK	600	10	30	1.5
IGB15N60T	SP000054921	D <sup>2</sup> -PAK	600	15	45	1.5
IGB30N60T	SP000095765	D <sup>2</sup> -PAK	600	30	90	1.5
IGB50N60T	SP000054922	D <sup>2</sup> -PAK	600	50	150	1.5
IGD06N60T	SP000233590	D-PAK	600	6	18	1.5
IGP06N60T	SP000683040	TO220	600	6	18	1.5
IGP10N60T	SP000683042	TO220	600	10	30	1.5
IGP15N60T	SP000683044	TO220	600	15	45	1.5
IGP50N60T	SP000683046	TO220	600	50	150	1.5
IGW30N60T	SP000054925	TO247	600	30	90	1.5
IGW50N60T	SP000054926	TO247	600	50	150	1.5
IGW75N60T	SP000054927	TO247	600	75	225	1.5

### TRENCHSTOP™ 1200 V

IGW08T120	SP000013937	TO247	1200	8	24	1.7
IGW15T120	SP000013888	TO247	1200	15	45	1.7
IGW25T120	SP000013887	TO247	1200	25	75	1.7
IGW40T120	SP000013886	TO247	1200	40	105	1.7
IGW60T120	SP000013906	TO247	1200	60	105	1.7

### TRENCHSTOP™ DuoPack (IGBT + Emitter Controlled Diode) 600 V

IKA06N60T	SP000215375	TO220	600	6	18	1.5
IKA10N60T	SP000215376	TO220	600	10	30	1.5
IKA15N60T	SP000215377	TO220	600	15	45	1.5
IKB06N60T	SP000014954	D <sup>2</sup> -PAK	600	6	18	1.5
IKB10N60T	SP000014833	D <sup>2</sup> -PAK	600	10	30	1.5
IKB15N60T	SP000054882	D <sup>2</sup> -PAK	600	15	45	1.5
IKB20N60T	SP000054883	D <sup>2</sup> -PAK	600	20	60	1.5
IKI04N60T	SP000607046	I <sup>2</sup> -PAK	600	4	12	1.5
IKP04N60T	SP000683054	TO220	600	4	12	1.5
IKP06N60T	SP000683056	TO220	600	6	18	1.5
IKP10N60T	SP000683062	TO220	600	10	30	1.5
IKP15N60T	SP000683064	TO220	600	15	45	1.5
IKP20N60T	SP000683066	TO220	600	20	60	1.5
IHW30N60T	SP000076306	TO247	600	30	90	1.5
IHW40T60	SP000309994	TO247	600	40	120	1.55
IKW20N60T	SP000054886	TO247	600	20	60	1.5
IKW30N60T	SP000054887	TO247	600	30	90	1.5
IKW50N60T	SP000054888	TO247	600	50	150	1.5
IKW75N60T	SP000054889	TO247	600	75	225	1.5

SMD = Surface Mounted Device



Type	Ordering Code	Package	Data			
			$V_{CE}$ V	$I_C$ A	$I_C$ (pulse) (max) A	$V_{CE(sat)}$ (typ) V

**IGBT Power Transistors****TRENCHSTOP™ DuoPack (IGBT + Emitter Controlled Diode)  
900 V**

IHW30N90T	SP000076322	TO247	900	30	90	1.5
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**1000 V**

IHW30N100T	SP000086713	TO247	1000	30	90	1.55
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**1200 V**

IHP10T120	SP000683048	TO220	1200	10	24	2.2
IHW15T120	SP000014892	TO247	1200	15	45	2.2
IHW20T120	SP000014881	TO247	1200	20	60	1.7
IHW40T120	SP000014893	TO247	1200	40	105	2.3
IKW08T120	SP000013885	TO247	1200	8	24	1.7
IKW15T120	SP000013938	TO247	1200	15	45	1.7
IKW25T120	SP000013939	TO247	1200	25	75	1.7
IKW40T120	SP000013940	TO247	1200	40	105	1.7

**TRENCHSTOP™2 DuoPack (IGBT + Emitter Controlled Diode)  
1200 V**

IKW15T120T2	SP000244961	TO247	1200	15	60	2.2
IKW25T120T2	SP000244960	TO247	1200	25	100	1.7
IKW40T120T2	SP000244962	TO247	1200	40	160	1.75

**TRENCHSTOP™MRC (Reverse Conducting - Soft Switching Applications)  
600 V**

IHD06N60RA	SP000443672	D-PAK	600	6	18	1.6
IHD10N60RA	SP000443668	D-PAK	600	10	20	1.6
IHW40N60R	SP000357222	TO247	600	40	120	1.65

**TRENCHSTOP™MRC (Reverse Conducting - Fast Soft Switching Applications)  
600 V**

▼ IHW40N60RF	SP000621080	TO247	600	40	120	1.85
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SMD = Surface Mounted Device

# Power Semiconductors

Type	Ordering Code	Package	Data			
			$V_{CE}$	$I_C$	$I_C$ (pulse) (max)	$V_{CE}$ (sat) (typ)
			V	A	A	V

## IGBT Power Transistors

### TRENCHSTOP™MRC (Reverse Conducting - Hard Switching Applications) 600 V

IKD04N60R	SP000623346	D-PAK	600	4	12	1.65
IKD06N60R	SP000623350	D-PAK	600	6	12	1.65
IKD10N60R	SP000629350	D-PAK	600	10	30	1.65
IKD15N60R	SP000539764	D-PAK	600	15	30	1.65
IKU04N60R	SP000623348	I-PAK	600	4	12	1.65
IKU06N60R	SP000623352	I-PAK	600	6	12	1.65
IKU10N60R	SP000629354	I-PAK	600	10	30	1.65
IKU15N60R	SP000539762	I-PAK	600	15	30	1.65

### 900 V

IHW30N90R	SP000209140	TO247	900	30	90	1.7
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### 1000 V

IGW30N100T	SP000380845	TO247	1000	30	90	1.55
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### TRENCHSTOP™MRC (Reverse Conducting - Soft Switching Applications) 1000 V

IHW30N100R	SP000212224	TO247	1000	30	90	1.75
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### 1100 V

▼ IHW30N110R3	SP000702510	TO247	1100	30	90	1.55
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### 1200 V

IHW15N120R3	SP000521590	TO247	1200	15	45	1.48
IHW20N120R3	SP000437702	TO247	1200	20	60	1.48
IHW25N120R2	SP000212016	TO247	1200	25	75	1.6
IHW30N120R2	SP000212017	TO247	1200	30	90	2.0
IHY15N120R3	SP000678766	TO247HC-3	1200	15	45	1.48
IHY20N120R3	SP000678764	TO247HC-3	1200	20	60	1.48

### 1350 V

▼ IHY20N135R3	SP000752728	TO247HC-3	1350	20	60	1.6
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### 1600 V

IHW30N160R2	SP000273701	TO247	1600	30	90	1.65
▼ IHY30N160R2	SP000678770	TO247HC-3	1600	30	90	1.8

SMD = Surface Mounted Device

Type	Ordering Code	Package	Data			
			$V_{RRM}$ V	$I_F$ A	$Q_{tryp}$ nC	$I_{F,SM}$ at $T_1 = 25^\circ\text{C}$ A

**Power Diodes****Emitter Controlled Diodes****600 V**

IDB09E60	SP000013914	D <sup>2</sup> -PAK	600	9	343	40
IDB15E60	SP000014044	D <sup>2</sup> -PAK	600	15	595	60
IDB23E60	SP000278566	D <sup>2</sup> -PAK	600	23	970	89
IDB30E60	SP000013917	D <sup>2</sup> -PAK	600	30	1100	117
IDB45E60	SP000013635	D <sup>2</sup> -PAK	600	45	1400	162
IDD03E60	SP000013632	D-PAK	600	3	118	16
IDD06E60	SP000077586	D-PAK	600	6	240	29
IDD09E60	SP000013634	D-PAK	600	9	343	40
IDD15E60	SP000077587	D-PAK	600	15	595	60
IDP06E60	SP000683020	TO220	600	6	240	29
IDP15E60	SP000683024	TO220	600	15	595	60
IDP23E60	SP000683028	TO220	600	23	970	89
IDP30E60	SP000683032	TO220	600	30	1100	117
IDP45E60	SP000683034	TO220	600	45	1400	162
IDW75E60	SP000227824	TO247	600	75	2400	220
IDW100E60	SP000227825	TO247	600	100	3600	400
▼ IDV30E60C	SP000844186	TO220 FullPAK	600	30	880	21

**1200 V**

IDB12E120	SP000013640	D <sup>2</sup> -PAK	1200	12	1200	63
IDB18E120	SP000013919	D <sup>2</sup> -PAK	1200	18	1880	78
IDB30E120	SP000013641	D <sup>2</sup> -PAK	1200	30	2630	102
IDP04E120	SP000683018	TO220	1200	4	330	28
IDP09E120	SP000683022	TO220	1200	9	950	50
IDP12E120	SP000712390	TO220	1200	12	1200	63
IDP18E120	SP000683026	TO220	1200	18	1880	78
IDP30E120	SP000683030	TO220	1200	30	2630	102

SMD = Surface Mounted Device

# Power Semiconductors

Type	Ordering Code	Package	Data			
			$V_{DS}$ V	$I_F$ A	$Q_{ctyp}$ nC	$I_{F,SM}$ at $T_J = 25^\circ\text{C}$ A

## Power Diodes

### Silicon Carbide Schottky Diodes 600 V

■ SDB06S60	SP000013624	D <sup>2</sup> -PAK	600	6	21	21.5
■ SDD04S60	SP000077602	D-PAK	600	4	13	12.5
■ SDT04S60	SP000013822	TO220 with decapped middle-leg	600	4	13	12.5
■ SDT05S60	SP000014671	TO220 with decapped middle-leg	600	5	14	18.5
■ SDT06S60	SP000013823	TO220 with decapped middle-leg	600	6	21	21.5
■ SDT08S60	SP000014897	TO220 with decapped middle-leg	600	8	24	26
■ SDT10S60	SP000014896	TO220 with decapped middle-leg	600	2 x 5	29	31
■ SDT12S60	SP000013825	TO220 with decapped middle-leg	600	2 x 6	30	36

### 2nd Generation 600 V

IDB06S60C	SP000411538	D <sup>2</sup> -PAK	600	6	15	46
IDB10S60C	SP000411540	D <sup>2</sup> -PAK	600	10	24	76
IDD04S60C	SP000080224	D-PAK	600	4	8	32
IDH04S60C	SP000657976	TO220 real 2pin	600	4	8	32
▼ IDH05S60C	SP000797662	TO220 real 2pin	600	5	12	42
IDH06S60C	SP000657978	TO220 real 2pin	600	6	15	49
IDH08S60C	SP000657994	TO220 real 2pin	600	8	19	59
IDH10S60C	SP000657996	TO220 real 2pin	600	10	24	84
▼ IDH12S60C	SP000797664	TO220 real 2pin	600	12	30	98
▼ IDH16S60C	SP000797666	TO220 real 2pin	600	16	38	118
■ IDT02S60C	SP000274984	TO220 with decapped middle-leg	600	2	2	11.5
■ IDT03S60C	SP000274985	TO220 with decapped middle-leg	600	3	5	16
■ IDT04S60C	SP000080225	TO220 with decapped middle-leg	600	4	8	32
■ IDT05S60C	SP000096441	TO220 with decapped middle-leg	600	5	12	42
■ IDT06S60C	SP000096442	TO220 with decapped middle-leg	600	6	15	49
■ IDT08S60C	SP000080226	TO220 with decapped middle-leg	600	8	19	59

SMD = Surface Mounted Device

Type	Ordering Code	Package	Data			
			$V_{DS}$ V	$I_F$ A	$Q_{Ctyp}$ nC	$I_{F,SM}$ at $T_j = 25^\circ\text{C}$ A

**Power Diodes**
**Silicon Carbide Schottky Diodes**  
**2nd Generation**  
**600 V**  
 (cont'd)

■ IDT10S60C	SP000096443	TO220 with decapped middle-leg	600	2 x 5	24	84
■ IDT12S60C	SP000096444	TO220 with decapped middle-leg	600	2 x 6	30	98
■ IDT16S60C	SP000080227	TO220 with decapped middle-leg	600	2 x 8	38	118
▼ IDV02S60C	SP000659198	TO220 FullPAK	600	2	3.2	11.5
▼ IDV03S60C	SP000732198	TO220 FullPAK	600	3	5	16
▼ IDV04S60C	SP000732202	TO220 FullPAK	600	4	8	32
▼ IDV05S60C	SP000732204	TO220 FullPAK	600	5	12	44
▼ IDV06S60C	SP000732206	TO220 FullPAK	600	6	15	48

**1200 V**

IDH05S120	SP000293029	TO220 real 2pin	1200	5	18	29
IDH08S120	SP000293031	TO220 real 2pin	1200	8	27	39
IDH10S120	SP000293034	TO220 real 2pin	1200	10	36	58
IDH15S120	SP000293028	TO220 real 2pin	1200	15	54	78

**3rd Generation**  
**600 V**

IDD03SG60C	SP000786802	D-PAK	600	3	3.2	11.5
IDD04SG60C	SP000786804	D-PAK	600	4	4.5	18
IDD05SG60C	SP000786806	D-PAK	600	5	6.0	26
IDD06SG60C	SP000786808	D-PAK	600	6	8.0	32
IDD08SG60C	SP000786810	D-PAK	600	8	12	42
IDD09SG60C	SP000786812	D-PAK	600	9	15	49
IDD10SG60C	SP000786814	D-PAK	600	10	16	51
IDD12SG60C	SP000786816	D-PAK	600	12	19	59
IDH03SG60C	SP000523728	TO220 real 2pin	600	3	3.2	11.5
IDH04SG60C	SP000607026	TO220 real 2pin	600	4	4.5	18
IDH05SG60C	SP000607034	TO220 real 2pin	600	5	6.0	26
IDH06SG60C	SP000523730	TO220 real 2pin	600	6	8.0	11.5
IDH08SG60C	SP000523732	TO220 real 2pin	600	8	12	42
IDH09SG60C	SP000523734	TO220 real 2pin	600	9	15	49
IDH10SG60C	SP000607040	TO220 real 2pin	600	10	16	51
IDH12SG60C	SP000523738	TO220 real 2pin	600	12	19	59

**1200 V**

▼ IDH02SG120	SP000541318	TO220 real 2pin	1200	2	7.2	12
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SMD = Surface Mounted Device

# Power Semiconductors

Type	Ordering Code	Package	Data		
			$V_{DS}$ V	$I_{L-ISO-Norm}$ A	$R_{DS(on)}$ mΩ

## Smart Low-Side Switches

### TEMPFET™

#### N-Channel Enhancement Types

BTS110	SP000011184	P-TO220-3-1	100	1.75	200
BTS110 E3045A	SP000011183	P-TO220-3-45	100	1.75	200
BTS112A	SP000011185	P-TO220-3-1	60	2.5	150
BTS112A E3045A	SP000011186	P-TO220-3-45	60	2.5	150
BTS114A	SP000011191	P-TO220-3-1	50	3.8	100
BTS114A E3045A	SP000011192	P-TO220-3-45	50	3.8	100
BTS129	SP000011202	P-TO220-3-1	60	7.5	50
BTS129 E3045A	SP000011203	P-TO220-3-45	60	7.5	50
BTS240A	SP000011223	P-TO218-3-1	50	21	50

#### N-Channel Enhancement Types (Logic Level)

BTS113A	SP000011187	P-TO220-3-1	60	2.2	170
BTS113A E3045A	SP000011188	P-TO220-3-45	60	2.2	170
BTS113A E3064	SP000011189	P-TO220-3-64	60	2.2	170
BTS115A	SP000011193	P-TO220-3-1	50	3.2	120
BTS115A E3045A	SP000011194	P-TO220-3-45	50	3.2	120
BTS121A	SP000011200	P-TO220-3-1	100	3.5	100
BTS121A E3045A	SP000011201	P-TO220-3-45	100	3.5	100
BTS131	SP000011204	P-TO220-3-1	50	6.5	60
BTS131 E3045A	SP000011206	P-TO220-3-45	50	6.5	60
BTS132 E3045A	SP000011210	P-TO220-3-45	60	6.0	65
BTS132 E3129	SP000011208	P-TO220-3-129	60	6.0	65

### SPEED TEMPFET™

#### N-Channel Enhancement Types

BTS244Z	SP000468060	PG-TO220-5-3	55	19	18
BTS244Z E3043	SP000399006	PG-TO220-5-43	55	19	18
BTS244Z E3062A	SP000399004	PG-TO220-5-62	55	19	18
BTS247Z	SP000468058	PG-TO220-5-3	55	26	13
BTS247Z E3043	SP000399008	PG-TO220-5-43	55	26	13
BTS247Z E3062A	SP000399010	PG-TO220-5-62	55	26	13
BTS282Z	SP000399016	PG-TO220-7-3	49	36	6.5
BTS282Z E3180A	SP000399014	PG-TO220-7-180	49	36	6.5
BTS282Z E3230	SP000457996	PG-TO220-7-230	49	36	6.5

SMD = Surface Mounted Device

Type	Ordering Code	Package	Data		
			$V_{DS}$ V	$I_{L-ISO-Norm}$ A	$R_{DS(on)}$ mΩ

## Smart Low-Side Switches

## HITFET™ for automotive applications

BSP75N	SP000305171	SOT223	> 60	0.7	550
BSP76	SP000292889	SOT223	> 42	1.4	200
BSP76 E6433	SP000379611	SOT223	> 42	1.4	200
BSP77	SP000383400	SOT223	> 42	2.17	100
BSP78	SP000292892	SOT223	> 42	3.0	50
BTS117	SP000011195	P-TO220-3-5	> 60	3.5	100
BTS117 E3044A	SP000011198	P-TO220-3-44	> 60	3.5	100
BTS117TC	SP000668258	PG-TO263-3-2	> 60	3.5	100
BTS118D	SP000506212	PG-TO252-3-11	> 42	2.4	100
BTS133	SP000011211	P-TO220-3-5	> 60	7.0	50
BTS133 E3064	SP000011212	P-TO220-3-45	> 60	7.0	50
BTS133TC	SP000668256	PG-TO263-3-2	> 60	7.0	50
BTS134D	SP000506208	PG-TO252-3-11	> 42	3.5	50
BTS141	SP000011218	P-TO220-3-5	> 60	12	28
BTS141 E3064	SP000011220	P-TO220-3-64	> 60	12	28
BTS141TC	SP000668254	PG-TO263-3-2	> 60	12	28
BTS142D	SP000506220	PG-TO252-3-11	> 42	4.6	28
BTS149	SP000011221	P-TO220-3-1	> 60	19	18
BTS149 E3045A	SP000011222	P-TO220-3-45	> 60	19	18
BTS3028SDL	SP000438722	PG-TO252-3-11	60	5.0	28 (latch)
▼ BTS3028SDR	SP000438724	PG-TO252-3-11	60	5.0	28 (restart)
▼ BTS3046SDL	SP000438726	PG-TO252-3-11	60	3.6	46 (latch)
▼ BTS3104SDR	SP000438728	PG-TO252-3-11	60	3.6	46 (restart)
▼ BTS3104SDL	SP000438730	PG-TO252-3-11	60	2.0	104 (latch)
▼ BTS3046SDR	SP000438732	PG-TO252-3-11	60	2.0	104 (restart)
BTS3110N	SP000292896	SOT223	> 42	1.4	200
BTS3118D	SP000506216	PG-TO252--3-11	> 42	2.4	100
BTS3118N	SP000305173	SOT223	> 42	2.4	100
BTS3134D	SP000506210	PG-TO252-3-1	> 42	3.5	50
BTS3134N	SP000305174	SOT223	> 42	3.5	50
BTS3142D	SP000506218	PG-TO252-3-11	> 42	4.6	28
BTS3160D	SP000305175	PG-TO252-5-3	> 40	7.8	10
BTS3205G	SP000237784	PG-DSO-8-24	> 42	0.35	1900
BTS3205N	SP000438116	SOT223	> 42	0.35	1900
BTS3207N	SP000294550	SOT223	> 42	0.64	500
BTS3256D	SP000315628	PG-TO252-5-3	40	7.5	10
BTS3405G	SP000237783	PG-DSO-8-25	> 42	0.35	1900
BTS3408G	SP000305177	PG-DSO-8-36	> 60	0.55	550
BTS3410G (Dual)	SP000305178	PG-DSO-8-3	> 42	1.3	2 x 200
BTS949	SP000012076	P-TO220-5-3	> 60	19	18
BTS949 E3043	SP000011325	P-TO220-5-43	> 60	19	18
BTS949 E3062A	SP000012077	P-TO220-5-62	> 60	19	18

SMD = Surface Mounted Device

# Power Semiconductors

Type	Ordering Code	Package	Description
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## Smart Low-Side Switches

### Smart Multichannel Low-Side Switches (Flex)

TLE4226G	SP000011756	P-DSO-24-3	6-fold low-side switch, 2 x 0.5 A, 4 x 50 mA
TLE6217G	SP000435876	PG-DSO-20-12	Quad-channel low-side switch, 2 x 5 A, 2 x 3 A
TLE6220GP	SP000691118	PG-DSO-20-10	Quad-channel low-side switch, 4 x 3 A
TLE6228GP	SP000801282	PG-DSO-20-10	Quad-channel low-side switch, 2 x 5 A, 2 x 3 A, tube
TLE6228GP	SP000308874	PG-DSO-20-10	Quad-channel low-side switch, 2 x 5 A, 2 x 3 A, tape & reel
TLE6230GP	SP000691114	P-DSO-36-10	Octal-low-side switch, 8 x 1 A
TLE6232GP	SP000691110	PG-DSO-36-12	Six-channel low-side switch, 4 x 3 A, 2 x 1.5 A
TLE6240GP	SP000627670	PG-DSO-36-10	16-fold low-side switch, 8 x 1 A, 8 x 3 A
TLE6244X	SP000304416	PG-MQFP-64-10	18-channel low-side switch with SPI, 2 x 3.0 A, 12 x 2.2 A, 4 x 1.1 A
TLE6288R	SP000691124	PG-DSO-36-10	6-channel low-side switch with SPI, 3-channel high side with adjustable P&H current control, 3-channel high/low side configurable
TLE7241E	SP000485116	PG-DSO-20-27	Dual-channel constant current control solenoid driver with 16-bit SPI
TLE7241-2G	SP000318374	PG-DSO-28-26	Quad-channel fixed frequency constant current control IC with 32-bit SPI
TLE8102SG	SP000308142	PG-DSO-12-11	Dual-channel powertrain switch coreFLEX with 8-bit SPI
TLE8104E	SP000766202	PG-DSO-20-30	Quad-channel powertrain switch coreFLEX with 8-bit SPI

### SPI Driver for Enhanced Relay Control (SPIDER)

TLE7230G	SP000311687	PG-DSO-24-3	8-channel low-side switch, 8 x 0.3 A
TLE7230GS	SP000310471	PG-SSOP-24	8-channel low-side switch, 8 x 0.3 A, with three input pins for direct control
TLE7230R	SP000311685	PG-DSO-36-16	Octal low-side switch, power, with SPI, 8 x 0.5 A
TLE7232G	SP000311690	PG-DSO-24-3	8-channel low-side switch, 8 x 0.24 A
TLE7232GS	SP000310472	PG-SSOP-24	8-channel low-side switch, 8 x 0.24 A, with three input pins for direct control
TLE7231G	SP000297859	PG-DSO-14-3	4-channel low-side switch, 4 x 0.32 A
TLE7233G	SP000297860	PG-SSOP-24	4-channel low-side switch, 4 x 0.39 A, with four input pins for direct control and limp home
TLE7234E	SP000297861	PG-SSOP-24-4	8-channel high-side and low-side relay switch, 8 x 0.35 A
▼ TLE7234EM	SP000670334	PG-SSOP-24-4 EP	8-channel high-side and low-side relay switch, 8 x 0.35 A
TLE7234G	SP000297862	PG-DSO-20-45	8-channel high-side and low-side relay switch, 8 x 0.28 A
TLE7235E	SP000297863	PG-SSOP-24-4	8-channel high-side and low-side relay switch with limp home mode, 8 x 0.35 A
TLE7235G	SP000297864	PG-DSO-20-45	8-channel high-side and low-side relay switch with limp home mode, 8 x 0.28 A
TLE7236E	SP000297865	PG-SSOP-24-4	8-channel high-side and low-side relay switch with limp home mode and cranking, 8 x 0.35 A
▼ TLE7236EM	SP000670338	PG-SSOP-24-4 EP	8-channel high-side and low-side relay switch with limp home mode and cranking, 8 x 0.35 A
TLE7236G	SP000297866	PG-DSO-20-45	8-channel high-side and low-side relay switch with limp home mode and cranking, 8 x 0.25 A
▼ TLE7237SL	SP000670304	PG-SSOP-24-5	8-channel high-side and low-side relay switch, 8 x 0.26 A
▼ TLE7238SL	SP000670306	PG-SSOP-24-5	8-channel high-side and low-side relay switch with limp home mode, 8 x 0.26 A
▼ TLE7239SL	SP000670308	PG-SSOP-24-5	8-channel high-side and low-side relay switch with limp home mode and cranking, 8 x 0.25 A
TLE7240SL	SP000396404	PG-SSOP-24-7	8-channel protected low-side relay switch, 8 x 0.20 A, with four input pins for direct control and limp home
TLE7243SL	SP000619874	PG-SSOP-24-7	8-channel protected low-side relay switch, $R_{DS} = 1.2\Omega$ with four input pins for direct control and limp home
TLE7244SL	SP000619872	PG-SSOP-24-7	8-channel protected low-side relay switch, $R_{DS} = 0.8\Omega$ with four input pins for direct control and limp home

SMD = Surface Mounted Device



Type	Ordering Code	Package	Data			
			$V_{BB(AZ)}$ min.	$R_{DS(on)}$	$I_{L(nom)}$ min.	$I_{L(SCP)}$ typ.
			V	mΩ	A	A

## Smart High-Side Switches

## Mini PROFET™ for automotive applications

BSP452	SP000272112	SOT223	41	200	> 0.7	1.5
BSP742R	SP000272115	PG-DSO-8-24	41	350	> 0.4	1.2
BSP742RI	SP000278925	PG-DSO-8-24	41	350	> 0.4	1.2
BSP742T	SP000311133	PG-DSO-8-24	41	350	0.8	4
BSP752R	SP000355392	PG-DSO-8-24	62	200	1.3	6.5
BSP752T	SP000278359	PG-DSO-8-24	62	200	1.3	6.5
BSP762T	SP000272118	PG-DSO-8-24	41	100	2	10
BSP772T	SP000355395	PG-DSO-8-24	41	60	2.6	17
BTS441RG	SP000355405	PG-TO263-5-2	> 40	20	7.2	65
BTS441RS	SP000419390	PG-TO220-5-12	> 40	20	7.2	65
BTS441T	SP000409094	PG-TO220-5-11	> 40	20	7.2	65
BTS441TG	SP000311504	PG-TO263-5-2	> 40	20	7.2	65
BTS441TS	SP000419386	PG-TO220-5-12	> 40	20	7.2	65
BTS452R	SP000506224	PG-TO252-5-11	62	200	1.7	6.5
BTS452T	SP000506226	PG-TO252-5-11	62	200	1.7	6.5
BTS462T	SP000506232	PG-TO252-5-1	41	100	2.3	14
BTS4140N	SP000272323	SOT223	62	1000	0.2	0.9
BTS4141N	SP000302609	SOT223	47	200	0.7	1.4
BTS4142N	SP000355402	SOT223	47	200	1.4	3
BTS4175SGA	SP000360279	PG-DSO-8-24	> 52	175	1.3	6
BTS4300SGA	SP000360280	PG-DSO-8-24	> 34	300	0.4	0.4

## Mini PROFET™ for industrial applications

ISP452	SP000219823	SOT223	41	200	> 0.7	1.5
ISP742RI	SP000221229	PG-DSO-8-6	41	350	> 0.4	1.2
ISP752R	SP000219825	PG-DSO-8-6	62	200	1.3	6.5
ISP752T	SP000211730	PG-DSO-8-6	62	200	1.3	6.5
ISP762T	SP000221228	PG-DSO-8-6	41	100	2	10
ISP772T	SP000219824	PG-DSO-8-6	41	60	2.6	17
ITS4140N	SP000240073	SOT223	62	1000	0.2	0.9
ITS4141D	SP000221235	P-TO252-5-1	47	200	0.7	1.4
ITS4141N	SP000219536	SOT223	47	200	0.7	1.4
ITS4142N	SP000221218	SOT223	47	200	1.4	3

SMD = Surface Mounted Device

# Power Semiconductors

Type	Ordering Code	Package	Data			
			$V_{BB(AZ)}$ min.	$R_{DS(on)}$	$I_{L(nom)}$ min.	$I_{L(SCP)}$ typ.
			V	mΩ	A	A

## Smart High-Side Switches

### PROFET™ for automotive applications

BTS307 E3062A	SP000011225	P-TO220-5-62	65	250	1.3	10
BTS409L1 E3062A	SP000011232	P-TO220-5-62	40	200	2	7.5
BTS410E2	SP000011233	P-TO220-5-3	65	220	2	12
BTS410E2 E3043	SP000011234	P-TO220-5-43	65	220	2	12
BTS410E2 E3062A	SP000011235	P-TO220-5-62	65	220	2	12
BTS410F2	SP000011236	P-TO220-5-3	65	220	2	5.5
BTS410F2 E3062A	SP000016371	P-TO220-5-62	65	220	2	5.5
BTS426L1 E3062A	SP000011244	P-TO220-5-62	> 40	60	4	25
BTS428L2	SP000506234	PG-TO252-3-1	> 40	60	3.6	22
BTS432E2	SP000711528	PG-TO220-5-3	63	38	9	44
BTS432E2 E3062A	SP000663358	PG-TO220-5-62	63	38	9	44
BTS436L2G	SP000011257	P-TO263-5-2	> 40	38	5.2	51
BTS442E2	SP000711526	PG-TO220-5-3	63	18	17	95
BTS442E2 E3062A	SP000663460	PG-TO220-5-62	63	18	17	95
BTS640S2G	SP000528876	PG-TO263-7-2	> 40	30	4.0	50
BTS730	SP000272333	PG-DSO-20-9	> 40	70	3.5	20

### PROFET™ for industrial applications

ITS410E2	SP000221219	PG-TO220-5-3	65	220	2	12
ITS410E2 E3043	SP000221227	PG-TO220-5-43	65	220	2	12
ITS428L2	SP000525146	PG-TO252-3-1	> 40	60	3.6	22
ITS436L2	SP000221231	PG-TO220-5-11	> 40	38	5.2	51
ITS436L2S	SP000221232	PG-TO220-5-12	> 40	38	5.2	51
ITS640S2	SP000221217	PG-TO220-7-11	> 40	30	4.0	50
ITS640S2S	SP000221225	PG-TO220-7-12	> 40	30	4.0	50

SMD = Surface Mounted Device

Type	Ordering Code	Package	Data			
			$V_{BB(AZ)}$ min.	$R_{DS(on)}$	$I_{L(nom)}$ min.	$I_{L(SCP)}$ typ.
			V	mΩ	A	A

### Smart High-Side Switches

#### High Current PROFET™ for automotive applications

BTS443P	SP000264198	PG-TO252-5-11	38	16	6.2	35
BTS5012SDA	SP000298620	PG-TO252-5-11	39	12	6.5	105
BTS5014SDA	SP000298621	PG-TO252-5-11	39	14	6.0	90
BTS5016SDA	SP000298622	PG-TO252-5-11	39	16	5.5	75
BTS6133D	SP000274948	PG-TO252-5-1	39	10	8	105
BTS6142D	SP000264200	PG-TO252-5-1	39	12	7	100
BTS6143D	SP000264199	PG-TO252-5-11	39	10	8	105
BTS6163D	SP000264201	PG-TO252-5-11	63	20	5.5	80
▼ BTF50060-1TEA	SP000629444	PG-TO252-5-11	16	6	16.5	60
BTS50050-1EGA	SP000410462	PG-DSO-12-16	42	5	16	100
BTS50055-1TMA	SP000385906	PG-TO220-7-4	62	6	13.6	130
BTS50055-1TMB	SP000385907	PG-TO220-7-11	62	6	13.6	130
BTS50055-1TMC	SP000385908	PG-TO220-7-4	62	6	13.6	130
BTS50060-1EGA	SP000299539	PG-DSO-12-16	42	6	15	100
▼ BTS50060-1TEA	SP000402336	PG-TO252-5-11	42	6	15	100
BTS50070-1EGA	SP000410464	PG-DSO-12-16	42	7	14	90
BTS50070-1TMA	SP000411772	PG-TO220-7-4	39	7	12	90
BTS50070-1TMB	SP000411774	PG-TO220-7-12	39	7	12	90
BTS50080-1EGA	SP000410466	PG-DSO-12-16	42	8	13	80
BTS50080-1TEA	SP000411780	PG-TO252-5-11	39	8	10	70
BTS50080-1TEB	SP000411784	PG-TO252-5-11	39	8	10	70
BTS50080-1TMA	SP000385909	PG-TO220-7-4	39	8	9.5	90
BTS50080-1TMB	SP000385910	PG-TO220-7-12	39	8	9.5	90
▼ BTS50080-1TMC	SP000479402	PG-TO220-7-4	39	8	9.5	90
BTS50085-1TMA	SP000385911	PG-TO220-7-4	62	9	9.9	90
BTS50085-1TMB	SP000385912	PG-TO220-7-11	70	9	9.9	90

SMD = Surface Mounted Device

# Power Semiconductors

Type	Ordering Code	Package	Data			
			$V_{BB(AZ)}$ min.	$R_{DS(on)}$	$I_{L(nom)}$ min.	$I_{L(SCP)}$ typ.
			V	mΩ	A	A

## Smart High-Side Switches

### Two Channel PROFET™ for automotive applications

BTS4160DGA	SP000360284	PG-DSO-14-37	> 43	2 x 160	1.8	6.5
▼ BTS5020-2EKA	SP000857482	PG-DSO-14-40 EP	> 24	2 x 20	7/5	50
▼ BTS5030-2EKA	SP000389642	PG-DSO-14-40 EP	> 24	2 x 30	6/4	36
▼ BTS5045-2EKA	SP000857484	PG-DSO-14-40 EP	> 24	2 x 45	4.5/3	25
▼ BTS5090-2EKA	SP000639242	PG-DSO-14-40 EP	> 24	2 x 90	3.5/1.5	20
▼ BTS5120-2EKA	SP000639244	PG-DSO-14-40 EP	> 24	2 x 120	2.5/2	9
▼ BTS5180-2EKA	SP000639238	PG-DSO-14-40 EP	> 24	2 x 180	2/1.5	8
BTS5210G	SP000272327	PG-DSO-14-35	> 43	2 x 140	2.4	6.5
BTS5210L	SP000301612	PG-DSO-12-9	> 43	2 x 140	2.4	6.5
BTS5215L	SP000301613	PG-DSO-12-9	> 43	2 x 90	3.7	12
BTS5231-2GS	SP000281794	PG-DSO-14-31	> 28	2 x 140	1.8	8
■ BTS5235-2G	SP000281079	PG-DSO-20-43	> 28	2 x 60	3.5	6
■ BTS5235-2L	SP000280715	PG-DSO-12-9	> 28	2 x 60	3.5	6
■ BTS5236-2GS	SP000280717	PG-DSO-14-32	> 28	2 x 50	3.6	6
■ BTS5242-2L	SP000281082	PG-DSO-12-19	> 28	2 x 25	6.0	7/40 (adjustable)
■ BTS5246-2L	SP000281083	PG-DSO-12-19	> 28	2 x 19	6.0	7/40 (adjustable)
BTS723GW	SP000272332	PG-DSO-14-37	> 58	2 x 105	2.9	8
BTS740S2	SP000313545	PG-DSO-20-9	> 34	2 x 30	5.5	24

### Two Channel PROFET™ for industrial applications

ITS612N1	SP000221233	PG-TO220-7-3	> 40	2 x 200	2.0	7.5
ITS612N1 E3230	SP000221234	PG-TO220-7-230	> 40	2 x 200	2.0	7.5
ITS621L1	SP000219533	PG-TO220-7-3	> 40	2 x 100	3.0	14
ITS621L1 E3230	SP000221224	PG-TO220-7-230	> 40	2 x 100	3.0	14
ITS5215L	SP000219826	PG-DSO-12-2	> 40	2 x 90	3.7	15

SMD = Surface Mounted Device

Type	Ordering Code	Package	Data			
			$V_{BB(AZ)}$ min.	$R_{DS(on)}$	$I_{L(nom)}$ min.	$I_{L(SCP)}$ typ.
			V	mΩ	A	A

### Smart High-Side Switches

#### Four Channel PROFET™ for automotive applications

BTS711L1	SP000379623	PG-DSO-20-9	> 40	4 x 200	1.7	7.5
BTS712N1	SP000317660	PG-DSO-20-9	> 40	4 x 200	1.7	7.5
BTS716G	SP000313686	PG-DSO-20-9	> 40	4 x 140	2.3	9
BTS716GB	SP000272337	PG-DSO-20-9	> 40	4 x 140	2.3	9
BTS721L1	SP000317661	PG-DSO-20-9	> 40	4 x 100	2.5	14
BTS724G	SP000313543	PG-DSO-20-9	> 40	4 x 90	3.0	15
BTS737S3	SP000014328	P-DSO-28-16	> 40	4 x 35	5.0	45
BTS4130QGA	SP000360283	PG-DSO-20-32	> 43	4 x 130	1.8	5
BTS 824R	SP000013628	P-DSO-20-12	> 40	4 x 90	3.7	12

#### Four Channel PROFET™ for industrial applications

ITS711L1	SP000219532	PG-DSO-20-9	> 40	4 x 200	1.7	7.5
ITS716G	SP000219534	PG-DSO-20-9	> 40	4 x 140	2.3	9
ITS724G	SP000219835	PG-DSO-20-9	> 40	4 x 90	3.7	15

#### Eight Channel PROFET™ for automotive applications

BTS4880R	SP000276938	PG-DSO-36-12	45	8 x 200	1.4	3
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#### Eight Channel PROFET™ for industrial applications

ITS4880R	SP000219527	PG-DSO-36-12	45	8 x 200	1.4	3
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SMD = Surface Mounted Device

# Power Semiconductors

Type	Ordering Code	Package	Description
<b>Smart High-Side Switches</b>			
<b>SPI Power Controller (SPOC) for automotive applications</b>			
▼ BTS5460SF	SP000408346	PG-DSO-36-43	Four channel smart high-side switches for advanced front light control, 8-bit serial peripheral interface, LED mode, overvoltage protection: > 40 V, loads: 2 x 65 W + 2 x 27 W, tape & reel
▼ BTS5480SF	SP000408348	PG-DSO-36-43	Four channel smart high-side switches for advanced front light control, 8-bit serial peripheral interface, LED mode, overvoltage protection: > 40 V, loads: 2 x 65 W + 2 x 27 W, tape & reel
▼ BTS6460SF	SP000408350	PG-DSO-36-43	Four channel smart high-side switches for advanced front light control, 16-bit serial peripheral interface, LED mode, overvoltage protection: > 40 V, loads: 2 x 65 W + 2 x 27 W, tape & reel
▼ BTS6480SF	SP000408352	PG-DSO-36-43	Four channel smart high-side switches for advanced front light control, 16-bit serial peripheral interface, LED mode, overvoltage protection: > 40 V, loads: 2 x 65 W + 2 x 27 W, tape & reel
BTS5566G	SP000255738	PG-DSO-36-34	Five channel smart high-side switches for bulb application, overvoltage protection: > 41 V, loads: 3 x 27 W + 2 x 10 W, tape & reel
BTS5590G	SP000306869	PG-DSO-36-34	Five channel smart high-side switches for bulb application, LED mode, watchdog integrated overvoltage protection: > 41 V, loads: 3 x 27 W + 2 x 10 W, tape & reel
BTS5576G	SP000255737	PG-DSO-36-34	Five channel smart high-side switches for bulb application, LED mode, overvoltage protection: > 41 V, loads: 3 x 27 W + 2 x 10 W, tape & reel
BTS5562E	SP000425312	PG-DSO-36-36 EP	Five channel smart high-side switches for bulb application, overvoltage protection: > 41 V, loads: 3 x 27 W + 2 x 10 W, basic, tape & reel
BTS5572E	SP000425314	PG-DSO-36-36 EP	Five channel smart high-side switches for bulb application, LED mode, overvoltage protection: > 41 V, loads: 3 x 27 W + 2 x 10 W, basic, tape & reel
BTS5662E	SP000296439	PG-DSO-36-36 EP	Six channel smart high-side switches for bulb application, overvoltage protection: > 41 V, loads: 3 x 27 W + 2 x 10 W + 1 x 5 W, basic, tape & reel
BTS5672E	SP000455504	PG-DSO-36-36 EP	Six channel smart high-side switches for bulb application, LED mode, overvoltage protection: > 41 V, loads: 3 x 27 W + 2 x 10 W + 1 x 5 W, basic, tape & reel
BTS5682E	SP000296428	PG-DSO-36-36 EP	Six channel smart high-side switches for bulb application, LED mode and cranking, overvoltage protection: > 41 V, loads: 3 x 27 W + 2 x 10 W + 1 x 5 W, basic, tape & reel

SMD = Surface Mounted Device

Type	Ordering Code	Package	Description
<b>Power Management ICs</b>			
<b>Automotive ICs</b>			
<b>Motor Driver ICs</b>			
<b>3-Phase Driver</b>			
TLE6280GP	SP000712092	PG-DSO-36-12	3-phase bridge driver IC for MOSFET power stages with multiple protection functions, 8 to 20 V supply voltage, tape reel
■ TLE6287GP	SP000014090	P-DSO-36-10	3-phase bridge driver IC for MOSFET power stages with multiple protection functions, 8 to 20 V supply voltage, additional pin for charge pump trigger, no di/dt control, tape reel
TLE7183F	SP000317391	PG-VQFN-48-14	3-phase bridge driver IC for 6 or 12 MOSFET power stages with multiple protection functions, 5.5 to 28 V supply voltage, short circuit protection with five fixed detection levels available, tape reel
TLE7184F	SP000362096	PG-VQFN-48-14	System IC for B6 motor drive applications. The device integrates all analog functions needed in the system as the B6 pre-driver, 50-mA LDO, PWM interface and an OpAmp, tape & reel
TLE7185-1E	SP000851146	PG-DSO-36-38	3-phase bridge driver IC for 6 or 12 MOSFET power stages with multiple protection functions, 5.5 to 32 V supply voltage, short circuit protection level adjustable, tape reel
TLE7189F	SP000248208	PG-VQFN-48	3-phase bridge driver IC for 6 or 12 MOSFET power stages with multiple protection functions, 5.5 to 28 V supply voltage, short circuit protection level adjustable, tape reel
TLE7189QK	SP000528310	PG-LQFP-64	3-phase bridge driver IC for 6 or 12 MOSFET power stages with multiple protection functions, 5.5 to 28 V supply voltage, short circuit protection level adjustable, tape reel

**H-Bridge Driver**

TLE6281G	SP000362093	PG-DSO-20-10	Half-bridge gate driver IC for MOSFET power stages with multiple protection functions, 7.5 to 60 V supply voltage, tape reel
TLE6284G	SP000362095	PG-DSO-20-10	Half-bridge gate driver IC for MOSFET power stages with multiple protection functions, 7.5 to 60 V supply voltage, short circuit protection level adjustable, tape reel

**Driver/H-Bridge Driver**

TLE6282G	SP000362094	PG-DSO-20-10	Dual half-bridge driver IC for 4 external MOSFETs for very high currents, tape reel
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**Stepper Motor Drivers**

TCA3727	SP000011713	P-DIP-20-3	Stepper motor driver, 2-phase motor, 2 x 1A / 50V, Inhibit, tube
TCA3727G	SP000306731	PG-DSO-24-3	Stepper motor driver, 2-phase motor, 2 x 1A / 50V, Inhibit, tape & reel
TLE4726G	SP000306733	PG-DSO-24-3	
TLE4729G	SP000398988	PG-DSO-24-16	Stepper motor driver, 2-phase with low quiescent current, Inhibit, 2 x 0.7A / 45V, tape & reel
TLE8444SL	SP000394373	PG-SSOP-24-7	Stepper motor driver, 2-phase with low quiescent current, Inhibit, 4 x 0.8A / 40V, tape & reel

SMD = Surface Mounted Device

# Power Semiconductors

Type	Ordering Code	Package	Description
<b>Power Management ICs</b>			
<b>Automotive ICs</b>			
<b>Motor Control ICs</b>			
TLE4207G	SP000305202	PG-DSO-14-22	Dual half-bridge driver, 2 x 0.8 A / 18 V, status flag mode, tape & reel
TLE4208G	SP000305242	PG-DSO-28-6	Quad half-bridge driver, 4 x 0.8 A / 18 V, status flag mode, tape & reel
TLE5205-2	SP000377306	PG-TO220-7-11	Full bridges for DC-motor control, 4 A / 40 V, status flag mode, tube
TLE5205-2S	SP000377308	P-TO220-7-12	
TLE5205-2G	SP000377307	PG-TO263-7-1	Full bridges for DC-motor control, 4 A / 40 V, status flag mode, tape & reel
TLE5205-2GP	SP000304412	PG-DSO-20-12	
TLE5206-2	SP000377309	PG-TO220-7-11	Full bridges for DC-motor control, 4 A / 40 V, status flag mode, tube
TLE5206-2S	SP000377311	PG-TO220-7-22	
TLE5206-2G	SP000377310	PG-TO263-7-1	Full bridges for DC-motor control, 4 A / 40 V, status flag mode, tape & reel
TLE5206-2GP	SP000304413	P-DSO-20-12	
TLE6208-3G	SP000305935	PG-DSO-14-35	Triple half-bridge driver, 3 x 0.8 A / 32 V, 16-bit SPI, tape & reel
TLE6208-6G	SP000305936	PG-DSO-28-24	Hex half-bridge driver / double six driver, 6 x 0.8 A / 40 V, 16-bit SPI, tape & reel
TLE6209R	SP000732082	PG-DSO-20-37	Hex half-bridge driver for throttle control, 6 A / 40 V, tape & reel
TLE7209-2R	SP000705014	PG-DSO-20-37	Half-bridge driver for throttle control, 6 A / 28 V, SPI, chopper current limitation, temp. prewarning, tape & reel
TLE8209-2SA	SP000541758	PG-DSO-20-65	Half-bridge driver for throttle control, 6 A / 28 V, SPI, programmable current limitation, outstanding EMI, tape & reel

## Servo Driver ICs

TLE4205	SP000011746	P-DIP-18-3	Power bridges for DC-motor control, 1 A / 32 V, tube
TLE4205G	SP000011747	P-DSO-20-6	Power bridges for DC-motor control, 1 A / 32 V, tape & reel
TLE4206G	SP000298150	PG-DSO-14-22	DC-motor driver for servo driver 1 A / 18 V, tape & reel
TLE4206-2G	SP000303750	PG-DSO-14-22	
TLE4209A	SP000305193	P-DIP-8-4	DC-motor driver for servo driver 1 A / 18 V, tube

SMD = Surface Mounted Device



Type	Ordering Code	Package	Description
<b>Power Management ICs</b>			
<b>Automotive ICs</b>			
<b>High Current Motor Drivers</b>			
<b>Trilith IC</b>			
BTM7700G	SP000306876	PG-DSO-28-22	Trilith IC, bridge or quad driver, $I_{SCP} = 9.5$ A, status, tape & reel
BTM7710G	SP000306878	PG-DSO-28-14	Trilith IC, bridge or quad driver, $I_{SCP} = 15$ A, status, tape & reel
BTM7710GP	SP000303743	PG-TO263-15-1	Trilith IC, bridge or quad driver, $I_{SCP} = 15$ A, status, PowerPak, tape & reel
BTM7740G	SP000306879	PG-DSO-28-14	Trilith IC, bridge or quad driver, $I_{SCP} = 8$ A, status, short circuit protection; tape & reel
BTM7741G	SP000306880	PG-DSO-28-14	Trilith IC, bridge or quad driver, $I_{SCP} = 8$ A, status, short circuit protection; tape & reel
BTM7750G	SP000306881	PG-DSO-28-22	Trilith IC, bridge or quad driver, $I_{SCP} = 12$ A, status, short circuit protection, tape & reel
BTM7750GP	SP000303751	PG-TO263-15-1	Trilith IC, bridge or quad driver, $I_{SCP} = 12$ A, status, short circuit protection, tape & reel
BTM7751G	SP000306882	PG-DSO-28-14	Trilith IC, bridge or quad driver, $I_{SCP} = 14$ A, status, short circuit protection, tape & reel
BTM7810K	SP000311145	PG-TO263-15-1	Trilith IC, bridge or quad driver, $I_{SCP} = 42$ A, status, PowerPak, HSS: 1 kHz, LSS: 1 kHz, tape & reel
BTM7811K	SP000303752	PG-TO263-15-1	Trilith IC, bridge or quad driver, $I_{SCP} = 42$ A, status, PowerPak, HSS: 1 kHz, LSS: 1 kHz, tape & reel

### High Current Motor Drivers NovalithIC™

BTN7930B	SP000299767	PG-TO263-7-1	28 mΩ NovalithIC™, high current PN half-bridge driver, 32 A, status, 5.5 to 28 V operating range, tape & reel
BTN7930P	SP000314911	PG-TO220-7-11	28 mΩ NovalithIC™, high current PN half-bridge driver, 32 A, status, 5.5 to 28 V operating range, tube
BTN7930S	SP000355958	PG-TO220-7-12	28 mΩ NovalithIC™, high current PN half-bridge driver, 32 A, status, 5.5 to 28 V operating range, tube
BTN7960B	SP000299768	PG-TO263-7-1	16 mΩ NovalithIC™, high current PN half-bridge driver, 47 A, status, 5.5 to 28 V operating range, tape & reel
BTS7960P	SP000317942	PG-TO220-7-11	16 mΩ NovalithIC™, high current PN half-bridge driver, 47 A, status, 5.5 to 28 V operating range, tube
BTS7960S	SP000355960	PG-TO220-7-12	16 mΩ NovalithIC™, high current PN half-bridge driver, 47 A, status, 5.5 to 28 V operating range, tube
BTN7970B	SP000299769	PG-TO263-7-1	16 mΩ NovalithIC™, high current PN half-bridge driver, 70 A, status, 5.5 to 28 V operating range, tape & reel
BTN7970P	SP000355967	PG-TO220-7-11	16 mΩ NovalithIC™, high current PN half-bridge driver, 70 A, status, 5.5 to 28 V operating range, tube
BTN7970S	SP000355961	PG-TO220-7-12	16 mΩ NovalithIC™, high current PN half-bridge driver, 70 A, status, 5.5 to 28 V operating range, tube
BTN7971B	SP000379686	PG-TO263-7-1	16 mΩ NovalithIC™, high current PN half-bridge driver, 70 A, status, 4.5 to 28 V operating range, tape & reel

### Door Module ICs (DoMoPo)

TLE8201R	SP000107174	PG-DSO-36-27	Full bridge for main doorlock motor, two half-bridges for deadbolt, two half-bridges for mirror position, high-side switch for mirror defrost, four high-side switches for 5 W and 10 W lamps, tape & reel
TLE8203E	SP000310729	PG-DSO-36-50	Three half-bridges for mirror control applications, high-side switch for mirror defrost, two high-side switches for 5 W and 10 W lamps, tape & reel

SMD = Surface Mounted Device

# Power Semiconductors

Type	Ordering Code	Package	Description
<b>Power Management ICs</b>			
<b>IGBT Gate Driver ICs</b>			
<b>EiceDRIVER™</b>			
1ED020112-F	SP000391828	PG-DSO-16-15	Single IGBT driver IC, (600/1200V) gate drive currents of +/-2A (EiceDRIVER™), tape & reel
1ED020112FA	SP000436718	PG-DSO-16-15	Single IGBT driver IC, (600/1200V) gate drive currents of +/-2A (EiceDRIVER™), automotive qualified, tape & reel
2ED020112-FI	SP000265782	PG-DSO-18-2	Half bridge IGBT driver IC (1200V), gate drive currents of +1A/-2A (EiceDRIVER™), industrial qualified, tape & reel
▼ 2ED020106-FI	SP000776988	PG-DSO-18-2	Half bridge IGBT driver IC (600V), gate drive currents of +1A/-2A (EiceDRIVER™), industrial qualified, tape & reel
▼ 2ED020106-FA	SP000850124	PG-DSO-18-2	Half bridge IGBT driver IC (600V), gate drive currents of +1A/-2A (EiceDRIVER™), automotive qualified, tape & reel
6ED003L06-F	SP000246764	PG-DSO-28-17	Integrated 3-phase bridge driver IGBT/MOS (600V), (EiceDRIVER™), tape & reel

## Coreless Transformer ISOFACE™

ISO1H801G	SP000722122	PG-DSO-36-10	Isolated power switch for industrial applications, 8-bit parallel/serial $\mu$ C compatible interface, all types of resistive, inductive and capacitive loads, 0.625 A high-side output, 5 V operating voltage, tape & reel
ISO1H802G	SP000726482	PG-DSO-36-10	Isolated power switch for industrial applications, 8-bit parallel/serial $\mu$ C compatible interface, all types of resistive, inductive and capacitive loads, 0.625 A high-side output, 5 V operating voltage, UL508 compliant, tape & reel
ISO1H811G	SP000413798	PG-DSO-36-10	Isolated power switch for industrial applications, 8-bit parallel/serial $\mu$ C compatible interface, all types of resistive, inductive and capacitive loads, 0.625 A high-side output, 3.3 - 5 V operating voltage, UL508 compliant, isolated return path for DIAG signal, tape & reel
ISO1H812G	SP000413800	PG-DSO-36-10	Isolated power switch for industrial applications, 8-bit parallel/serial $\mu$ C compatible interface, all types of resistive, inductive and capacitive loads, 0.625 A high-side output, 3.3 - 5 V operating voltage, UL508 compliant, isolated return path for DIAG signal, tape & reel
ISO1H815G	SP000555576	PG-DSO-36-10	Isolated power switch for industrial applications, 8-bit parallel/serial $\mu$ C compatible interface, all types of resistive, inductive and capacitive loads, 1.2 A high-side output, 3.3 - 5 V operating voltage, isolated return path for DIAG signal, tape & reel
ISO1H816G	SP000555578	PG-DSO-36-10	Isolated power switch for industrial applications, 8-bit parallel/serial $\mu$ C compatible interface, all types of resistive, inductive and capacitive loads, 1.2 A high-side output, 3.3 - 5 V operating voltage, isolated return path for DIAG signal, tape & reel

SMD = Surface Mounted Device

Type	Ordering Code	Package	Description
<b>Power Management ICs</b>			
<b>Automotive Linear Voltage Regulators</b>			
<b>Adjustable Standard Regulators</b>			
TLE4276DV	SP000300955	PG-TO252-5-11	adj. voltage, $I_{out} = 400$ mA, Inhibit, tape & reel
TLE4276GV	SP000306744	PG-TO263-5-1	
TLE4276-2DV	SP000409086	PG-TO252-5-11	adj. voltage, $I_{out} = 400$ mA, Inhibit, short circuit protected, overtemperature protected, tape & reel
TLE4276-2GV	SP000409088	PG-TO263-5-1	
■ TLE4276SV	SP000011831	P-TO220-5-43	adj. voltage, $I_{out} = 400$ mA, Inhibit, tube
TLE4276SV	SP000357986	PG-TO220-5-12	adj. voltage, $I_{out} = 400$ mA, Inhibit, tape & reel
■ TLE4276V	SP000011835	P-TO220-5-3	adj. voltage, $I_{out} = 400$ mA, Inhibit, tube
TLE4276V	SP000357988	PG-TO220-5-11	adj. voltage, $I_{out} = 400$ mA, Inhibit, tape & reel
TLE4284DV	SP000356994	PG-TO252-3-11	adj. voltage, $I_{out} = 1$ A, short circuit protected, overtemperature protected, tape & reel
TLF4277EL	SP000438718	PG-SSOP-14EP	adj. voltage, $I_{out} = 300$ mA, short circuit protected, overtemperature protected, tape & reel

**1.5 - 3.3 V Standard Regulators**

TLE4295G V26	SP000294730	SCT595	2.6 V, $I_{out} = 30$ mA, Reset, Power fail, tape & reel
TLE4295G V30	SP000012502	SCT595	3 V, $I_{out} = 30$ mA, Reset, Power fail, tape & reel
TLE4295G V33	SP000012501	SCT595	3.3 V, $I_{out} = 30$ mA, Reset, Power fail, tape & reel
TLE4296G V30	SP000012764	SCT595	3 V, $I_{out} = 30$ mA, Inhibit, tape & reel
TLE4296G V33	SP000012765	SCT595	3.3 V, $I_{out} = 30$ mA, Inhibit, tape & reel
TLE4296-2G V33	SP000014332	SCT595	3.3 V, $I_{out} = 30$ mA, Inhibit, reduced quiescent current, tape & reel
TLE4274D V33	SP000362357	PG-TO252-3-11	3.3 V, $I_{out} = 400$ mA, tape & reel
TLE4274GS V25	SP000395822	SOT223	2.5 V, $I_{out} = 400$ mA, tape & reel
TLE4274GS V33	SP000396456	SOT223	3.3 V, $I_{out} = 400$ mA, tape & reel
TLE4284D V15	SP000362366	PG-TO252-3-11	1.5 V, $I_{out} = 1$ A, short circuit protected, overtemperature protected, tape & reel
TLE4284D V18	SP000300973	PG-TO252-3-11	1.8 V, $I_{out} = 1$ A, short circuit protected, overtemperature protected, tape & reel
TLE4284D V26	SP000362369	PG-TO252-3-11	2.6 V, $I_{out} = 1$ A, short circuit protected, overtemperature protected, tape & reel
TLE4284D V33	SP000362370	PG-TO252-3-11	3.3 V, $I_{out} = 1$ A, short circuit protected, overtemperature protected, tape & reel
▼ TLE42994GM V33	SP000678670	PG-DSO-14-30	3.3 V, $I_{out} = 150$ mA, Reset, early warning, Enable function, tape & reel

**5 V Standard Regulators ( $\leq 200$  mA output current)**

TLE4285G	SP000011850	SCT595	5 V, $I_{out} = 15$ mA, Power fail, tape & reel
TLE4286G	SP000011851	SCT595	5 V, $I_{out} = 15$ mA, Inhibit, tape & reel
▼ TLE4294G V50	SP000361641	SCT595	5 V, $I_{out} = 30$ mA, Inhibit, reduced quiescent current, tape & reel
TLE4295G V50	SP000012500	SCT595	5 V, $I_{out} = 30$ mA, Reset, Power fail, tape & reel
TLE4296G V50	SP000012766	SCT595	5 V, $I_{out} = 30$ mA, Inhibit, tape & reel
TLE4296-2G V50	SP000014333	SCT595	5 V, $I_{out} = 30$ mA, Inhibit, reduced quiescent current, tape & reel
TLE4264G	SP000300936	SOT223	5 V, $I_{out} = 150$ mA, tape & reel
TLE42644G	SP000623992	SOT223	5 V, $I_{out} = 100$ mA, tape & reel
▼ TLE42344G	SP000719022	SOT223	5 V, $I_{out} = 100$ mA, tape & reel
▼ TLE42364G	SP000719024	SOT223	5 V, $I_{out} = 100$ mA, Enable function, tape & reel
TLE4266G	SP000300941	SOT223	5 V, $I_{out} = 150$ mA, Inhibit, tape & reel
TLE42664G	SP000624076	SOT223	5 V, $I_{out} = 100$ mA, Inhibit, tape & reel
TLE4269G	SP000300944	PG-DSO-8-16	5 V, $I_{out} = 150$ mA, Reset, early warning, tape & reel
TLE4269GL	SP000306742	PG-DSO-20-35	
TLE4269GM	SP000306726	PG-DSO-14-30	

SMD = Surface Mounted Device

# Power Semiconductors

Type	Ordering Code	Package	Description
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## Power Management ICs

### Automotive Linear Voltage Regulators

#### 5 V Standard Regulators ( $\leq 200$ mA output current)

(cont'd)

TLE4279G	SP000306727	PG-DSO-8-16	5 V, $I_{out} = 150$ mA, Reset, early warning, tape & reel
TLE4279GM	SP000306728	PG-DSO-14-30	
TLE4278G	SP000305157	PG-DSO-14-30	5 V, $I_{out} = 160$ mA, Reset, Watchdog, tape & reel
TLE4262G	SP000306732	PG-DSO-20-6	5 V, $I_{out} = 200$ mA, Reset, Inhibit, tape & reel
TLE4262GM	SP000306723	PG-DSO-14-30	
TLE4263G	SP000300935	PG-DSO-20-35	5 V, $I_{out} = 200$ mA, Reset, Inhibit, Watchdog, tape & reel
TLE4263GM	SP000300931	PG-DSO-14-30	
TLE4263GS	SP000306724	PG-DSO-8-16	
TLE4263-2ES	SP000366102	PG-DSO-8-16EP	
TLE42694E	SP000371264	PG-SSOP-14EP	5 V, $I_{out} = 150$ mA, Reset, early warning, tape & reel
TLE42694G	SP000317802	PG-DSO-8-16	
TLE42694GM	SP000317800	PG-DSO-14-30	5 V, $I_{out} = 150$ mA, Reset, early warning, tape & reel
TLE42794E	SP000371265	PG-SSOP-14EP	
TLE42794G	SP000358646	PG-DSO-8-16	5 V, $I_{out} = 150$ mA, Reset, early warning, tape & reel
TLE42794GM	SP000358648	PG-DSO-14-30	
TLE42994E	SP000371266	PG-SSOP-14EP	5 V, $I_{out} = 150$ mA, Reset, early warning, Enable function, tape & reel
TLE42994G	SP000253851	PG-DSO-8-16	
TLE42994GM	SP000253853	PG-DSO-14-30	
TLE4268G	SP000300943	PG-DSO-20-35	5 V, $I_{out} = 180$ mA, Reset, Watchdog, tape & reel
TLE4268GS	SP000306725	PG-DSO-8-16	
TLE4678EL	SP000677644	PG-SSOP-14	5 V, $I_{out} = 200$ mA, Reset, Watchdog, tape & reel
TLE4678GM	SP000358635	PG-DSO-14-30	
▼ TLE4699E	SP000358639	PG-SSOP-14EP	5 V, $I_{out} = 200$ mA, Reset, early warning, Enable function, tape & reel
▼ TLE4699GM	SP000479486	PG-DSO-14-30	

#### 5 V Standard Regulators ( $> 200$ mA output current)

▼ TLE4287G	SP000362372	PG-DSO-14-8	5 V, $I_{out} = 250$ mA, Reset, Inhibit, tape & reel
TLE4267G	SP000357710	PG-TO263-7-1	5 V, $I_{out} = 400$ mA, Reset, Inhibit, tape & reel
TLE4267GM	SP000306737	PG-DSO-14-30	
TLE4267	SP000012167	P-TO220-7-3	5 V, $I_{out} = 400$ mA, Reset, Inhibit, tube
TLE4267S	SP000011771	P-TO220-7-230	
TLE4274 V50	SP000269680	PG-TO220-3-1	5 V, $I_{out} = 400$ mA, tube
TLE4274D V50	SP000300149	PG-TO252-3-11	5 V, $I_{out} = 400$ mA, tape & reel
TLE4274G V50	SP000300975	PG-TO263-3-1	
■ TLE4276 V50	SP000011832	P-TO220-5-1	5 V, $I_{out} = 400$ mA, Inhibit, tube
TLE4276 V50	SP000357970	PG-TO220-5-11	5 V, $I_{out} = 400$ mA, Inhibit, tape & reel
TLE4276D V50	SP000306323	PG-TO252-5-11	5 V, $I_{out} = 400$ mA, Inhibit, tape & reel
TLE4276G V50	SP000306743	PG-TO263-5-1	
■ TLE4276S V50	SP000011829	P-TO220-5-43	5 V, $I_{out} = 400$ mA, Inhibit, tube
TLE4276S V50	SP000357981	PG-TO220-5-12	5 V, $I_{out} = 400$ mA, Inhibit, tape & reel
TLE4275	SP000306747	PG-TO220-5-11	5 V, $I_{out} = 400$ mA, Reset, tube
TLE4275S	SP000306748	PG-TO220-5-12	
TLE4275D	SP000300949	PG-TO252-5-11	5 V, $I_{out} = 400$ mA, Reset, tape & reel
TLE4275G	SP000297816	PG-TO263-5-1	
TLE4275D V33	SP000262517	PG-TO252-5-11	3.3 V, $I_{out} = 400$ mA, Reset, tape & reel
TLE4275G V33	SP000262524	PG-TO263-5-1	3.3 V, $I_{out} = 400$ mA, Reset, tape & reel
TLE4290D	SP000360722	PG-TO252-5-11	5 V, $I_{out} = 450$ mA, Power Good, tape & reel
TLE4290G	SP000362375	PG-TO263-5-1	

SMD = Surface Mounted Device

Type	Ordering Code	Package	Description
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### Power Management ICs

#### Automotive Linear Voltage Regulators

##### 5 V Standard Regulators (> 200 mA output current)

(cont'd)

■ TLE4270	SP000011792	P-TO220-5-11	5 V, $I_{out} = 550\text{mA}$ , Reset, tube
TLE4270-2S	SP000304936	PG-TO220-5-12	
TLE4270-2D	SP000304937	PG-TO252-5-11	5 V, $I_{out} = 550\text{mA}$ , Reset, tape & reel
TLE4270-2G	SP000304929	PG-TO263-5-1	
TLE4271-2	SP000306836	PG-TO220-7-11	5 V, $I_{out} = 550\text{mA}$ , Reset, Inhibit, Watchdog, tube
TLE4271-2S	SP000306320	PG-TO220-7-12	
TLE4271-2G	SP000300945	PG-TO263-7-1	5 V, $I_{out} = 550\text{mA}$ , Reset, Inhibit, Watchdog, tape & reel
TLE4284D V50	SP000362371	PG-TO252-3-11	5 V, $I_{out} = 1\text{A}$ , short circuit protected, overtemperature protected, tape & reel
TLE42754D	SP000354517	PG-TO252-5-11	5 V, $I_{out} = 450\text{ mA}$ , Reset, overtemperature protected, tape & reel
TLE42754G	SP000354518	PG-TO263-5-1	
TLE42754E	SP000441598	PG-SSOP-14EP	
TLE4675D	SP000315008	PG-TO252-5-11	5 V, $I_{out} = 400\text{ mA}$ , Reset, tape & reel
TLE4675G	SP000315009	PG-TO263-5-1	

#### 8.5 V and 10 V Standard Regulators

TLE4266GS V10	SP000317563	SOT223	10 V, $I_{out} = 120\text{ mA}$ , Inhibit, tape & reel
TLE4274G V10	SP000362359	PG-TO263-3-1	10 V, $I_{out} = 400\text{ mA}$ , tape & reel
TLE4274G V85	SP000362362	PG-TO263-3-1	8.5 V, $I_{out} = 400\text{ mA}$ , tape & reel
■ TLE4274 V10	SP000011811	P-TO220-3-1	10 V, $I_{out} = 400\text{ mA}$ , Inhibit, tube
TLE4274 V85	SP000361644	PG-TO220-3-1	8.5 V, $I_{out} = 400\text{ mA}$ , tube
TLE4276G V10	SP000433200	PG-TO263-5-1	10 V, $I_{out} = 400\text{ mA}$ , Inhibit, tape & reel
TLE4276 V85	SP000357975	PG-TO220-5-11	8.5 V, $I_{out} = 400\text{ mA}$ , Inhibit, tube
TLE4276S V85	SP000357984	PG-TO220-5-12	8.5 V, $I_{out} = 400\text{ mA}$ , Inhibit, tape & reel
■ TLE4276 V10	SP000011834	P-TO220-5-3	10 V, $I_{out} = 400\text{ mA}$ , Inhibit, tube
TLE4276G V85	SP000357978	PG-TO263-5-1	8.5 V, $I_{out} = 400\text{ mA}$ , Inhibit, tape & reel
▼ TLE4276G V10	SP000300972	PG-TO263-5-1	10 V, $I_{out} = 400\text{ mA}$ , Inhibit, tape & reel

#### Adjustable Ultra Low Quiescent Regulators

TLE42764DV	SP000427326	PG-TO252-5-11	adjustable voltage, $I_{out} = 400\text{ mA}$ , short circuit protected, overtemperature protected, Enable function, tape & reel
TLE42764GV	SP000427324	PG-TO263-5-1	

#### 2.6 V and 3.3 V Ultra Low Quiescent Regulators

TLE4266-2GS V33	SP000317555	SOT223	3.3 V, $I_{out} = 150\text{ mA}$ , Inhibit, tape & reel
TLE42744D V33	SP000644994	PG-TO252-3-11	5 V, $I_{out} = 400\text{ mA}$ , tape & reel
TLE42744G V33	SP000619810	P-TO263-3-1	
TLE42744GS V33	SP000653070	SOT223	
TLE4299GM V33	SP000300974	PG-DSO-14-30	3.3 V, $I_{out} = 150\text{ mA}$ , Inhibit, early warning, tape & reel
TLE4299G V33	SP000306730	PG-DSO-8-16	
TLE7273-2G V26	SP000369461	PG-DSO-14-4	2.6 V, $I_{out} = 180\text{ mA}$ , Inhibit, Reset, Window Watchdog, tape & reel
TLE7273-2G V33	SP000369462	PG-DSO-14-4	3.3 V, $I_{out} = 180\text{ mA}$ , Inhibit, Reset, Window Watchdog, tape & reel
TLE7278-2G V26	SP000369465	PG-DSO-14-4	2.6 V, $I_{out} = 180\text{ mA}$ , Inhibit, Reset, Watchdog, tape & reel
TLE7278-2G V33	SP000369466	PG-DSO-14-4	3.3 V, $I_{out} = 180\text{ mA}$ , Inhibit, Reset, Watchdog, tape & reel
TLE7279-2G V26	SP000369469	PG-DSO-14-4	2.6 V, $I_{out} = 180\text{ mA}$ , Inhibit, Reset, early warning, tape & reel
TLE7279-2G V33	SP000369470	PG-DSO-14-4	3.3 V, $I_{out} = 180\text{ mA}$ , Inhibit, Reset, early warning, tape & reel

SMD = Surface Mounted Device

# Power Semiconductors

Type	Ordering Code	Package	Description
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## Power Management ICs

### Automotive Linear Voltage Regulators 5 V Ultra Low Quiescent Current Regulators

TLE4264-2G	SP000305245	SOT223	5 V, $I_{out} = 150$ mA, tape & reel
TLE4266-2G	SP000416714	SOT223	5 V, $I_{out} = 150$ mA, Inhibit, tape & reel
TLE42744E V50	SP000540120	PG-SSOP-14 EP	5 V, $I_{out} = 400$ mA, tape & reel
TLE42744D V50	SP000461576	PG-TO252-3-11	
TLE42744G V50	SP000463264	PG-TO263-3-1	
TLE42764D V50	SP000636156	PG-TO252-5-11	5 V, $I_{out} = 400$ mA, short circuit protected, overtemperature protected, Enable function, tape & reel
TLE42764G V50	SP000636154	PG-TO263-5-1	
▼ TLE42764E V50	SP000707564	PG-SSOP-14EP	5 V, $I_{out} = 300$ mA, Reset, tape & reel
TLE7270-2D	SP000457356	PG-TO252-5-1	
TLE7270-2E	SP000457382	PG-SSOP-14EP	
TLE7270	SP000055309	P-TO263-5-1	
TLE7270-2G	SP000457384	PG-TO263-5-1	
TLE7272-2D	SP000468052	PG-TO252-5-1	
TLE7272-2E	SP000457386	PG-SSOP-14EP	
TLE7272G	SP000055848	P-TO263-5-1	5 V, $I_{out} = 300$ mA, Reset, Inhibit, tape & reel
■ TLE7273 V50	SP000067155	P-DSO-14-4	
TLE7273-2E V50	SP000369460	PG-SSOP-14EP	5 V, $I_{out} = 180$ mA, Inhibit, Reset, Window Watchdog, tape & reel
TLE7273-2G V50	SP000369463	PG-DSO-14-4	
TLE7274D	SP000055849	P-TO252-5-1	5 V, $I_{out} = 300$ mA, short circuit protected, tape & reel
TLE7274-2D	SP000468054	PG-TO252-3	
TLE7274-2E	SP000457388	PG-SSOP-14EP	
TLE7274-2G	SP000468056	PG-TO263-3	
TLE7276-2D	SP000457394	PG-TO252-5-1	5 V, $I_{out} = 300$ mA, Inhibit, tape & reel
TLE7276-2E	SP000457396	PG-SSOP-14EP	
TLE7278-2E V50	SP000369464	PG-SSOP-14EP	5 V, $I_{out} = 180$ mA, Inhibit, Reset, Watchdog, tape & reel
TLE7278-2G V50	SP000369467	PG-DSO-14-4	
TLE7279-2E V50	SP000369468	PG-SSOP-14EP	5 V, $I_{out} = 180$ mA, Inhibit, Reset, early warning, tape & reel
TLE7279-2G V50	SP000369471	PG-DSO-14-4	

### Multiple Regulators

TLE4470G	SP000306745	PG-DSO-20-6	5 V + 5 V, $I_{out} = 180$ mA/350 mA, Reset, early warning, tape & reel
TLE4470GS	SP000306746	PG-DSO-14-4	5 V + adj. voltage, $I_{out} = 180$ mA/350 mA, Reset, early warning, tape & reel
TLE4471G	SP000305246	PG-DSO-20-12	5 V + 5 V + 5 V, 2 tracked outputs 100/50 mA, Reset, Watchdog tape & reel
TLE4473G V52	SP000557252	PG-DSO-12-6	5 V + 2.6 V, $I_{out} = 180$ mA/300 mA, Watchdog, tape & reel
TLE4473G V53	SP000557254	PG-DSO-12-6	5 V + 3.3 V, $I_{out} = 180$ mA/300 mA, Watchdog, tape & reel
TLE4473G V55-2	SP000295344	PG-DSO-12-11	5 V + 5 V, $I_{out} = 190$ mA/300 mA, Reset, Inhibit, Watchdog, tape & reel
TLE4476D	SP000362383	PG-TO252-5-11	5 V + 3.3 V, $I_{out} = 350$ mA/430 mA, tape & reel
TLE7469GV52	SP000316703	PG-DSO-12-4	5 V + 2.6 V, $I_{out} = 300$ mA/320 mA, Inhibit, Reset, Watchdog, tape & reel
TLE7469GV53	SP000316704	PG-DSO-12-4	5 V + 3.3 V, $I_{out} = 300$ mA/320 mA, Inhibit, Reset, Watchdog, tape & reel

SMD = Surface Mounted Device

Type	Ordering Code	Package	Description
<b>Power Management ICs</b>			
<b>Voltage Tracker</b>			
TLE4250-2G	SP000255450	SCT595	adj. voltage, $I_{out} = 50$ mA, Inhibit, tape & reel
TLE4251D	SP000258501	PG-TO252-5-1	adj. voltage, $I_{out} = 400$ mA, Inhibit, tape & reel
TLE4251G	SP000306322	PG-TO263-5-1	adj. voltage, $I_{out} = 250$ mA, Inhibit, tape & reel
TLE4252D	SP000300938	PG-TO252-5-1	adj. voltage, $I_{out} = 250$ mA, Inhibit, tape & reel
TLE4252G	SP000393071	PG-TO263-5-1	adj. voltage, $I_{out} = 250$ mA, Inhibit, tape & reel
TLE4253GS	SP000253854	PG-DSO-8-10	adj. voltage, $I_{out} = 250$ mA, Inhibit, tape & reel
TLE4254GA	SP000297354	PG-DSO-8-10	adj. voltage, $I_{out} = 70$ mA, Inhibit, tape & reel
TLE4254GS	SP000297353	PG-DSO-8-10	adj. voltage, $I_{out} = 70$ mA, Inhibit, status output to indicate short circuits at the output, tape & reel
▼ TLE4254EJ A	SP000358630	PG-DSO-8-10 EP	adj. voltage, $I_{out} = 70$ mA, Inhibit, tape & reel
▼ TLE4254EJ S	SP000358633	PG-DSO-8-10 EP	adj. voltage, $I_{out} = 70$ mA, Inhibit, status output to indicate short circuits at the output, tape & reel

SMD = Surface Mounted Device

# Power Semiconductors

Type	Ordering Code	Package	Description
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## Power Management ICs

### Automotive DC/DC Converter

TLE6361G	SP000013297	P-DSO-36-12	Multi-voltage processor power supply, Buck converter, 5.5 V, Reset, Watchdog, SPI controlled, tape & reel
TLE6365G	SP000317609	PG-DSO-8-3	Step-down voltage regulator with reset, input voltage range 8 V to 40 V, tape & reel
TLE6368G2	SP000656590	PG-DSO-36-26	Multi-voltage processor power supply, 5.5 V, Reset, Watchdog, tape & reel
TLE6389-2GV	SP000317611	PG-DSO-14-1	Step-down DC/DC controller with external P-channel MOSFET, adjustable output voltage, early warning, tape & reel
TLE6389-2G V50	SP000317610	PG-DSO-14-1	Step-down DC/DC controller with external P-channel MOSFET, 5 V, RO-hysteresis, early warning, tape & reel
TLE6389-3G V50	SP000317612	PG-DSO-14-1	Step-down DC/DC controller with external P-channel MOSFET, 5 V, RO-hysteresis 1 V, early warning, tape & reel
TLE6711G	SP000317613	PG-DSO-14-1	Boost/buck multifunctional voltage regulator, Watchdog, tape & reel
TLE6711GL	SP000317614	PG-DSO-20-36	
TLE7368E	SP000307244	PG-DSO-36-24	Next generation micro controller supply, 5.5 V, Reset, Watchdog, tape & reel
TLE8366EV	SP000297388	PG-DSO-8-27 EP	1.8 A DC/DC step-down voltage regulator, adj. voltage, tape & reel
▼ TLE8366E V33	SP000549726	PG-DSO-8-27 EP	3.3 V, 1.8 A DC/DC step-down voltage regulator, tape & reel
▼ TLE8366E V50	SP000550310	PG-DSO-8-27 EP	5 V, 1.8 A DC/DC step-down voltage regulator, tape & reel
▼ TLE8386EL	SP000426670	PG-SSOP-14 EP	Smart Boost controller, adj. switching frequency, 5 V, Enable function, tape & reel
▼ TLE8386-2EL	SP000685670	PG-SSOP-14 EP	Basic smart Boost controller, adj. switching frequency, 5 V, Enable function, tape & reel

### Industrial DC/DC Converter

IFX9104EJV	SP000619696	PG-DSO-8-27	1.8 A DC/DC step-down voltage regulator, adj. voltage, 370-kHz switching frequency, tape & reel
▼ IFX9104EJ V33	SP000660594	PG-DSO-8-27	3.3 V, 1.8 A DC/DC step-down voltage regulator, 370-kHz switching frequency, tape & reel
▼ IFX9104EJ V50	SP000660596	PG-DSO-8-27	5 V, 1.8 A DC/DC step-down voltage regulator, 370-kHz switching frequency, tape & reel

### Industrial Linear

TLE4305G	SP000362379	PG-DSO-8-1	High precision bipolar regulator, breakdown voltage up to 45 V, tape & reel
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### 8.5 V and 10 V Linear Voltage Regulators for Industrial and Consumer Applications

IFX25001TS V10	SP000623070	PG-TO220-3-1	10 V, $I_{out} = 400$ mA, short circuit protected, overtemperature protected, tube
IFX25001TC V10	SP000623084	PG-TO263-3	10 V, $I_{out} = 400$ mA, short circuit protected, overtemperature protected, tape & reel
IFX25001TS V85	SP000623094	PG-TO220-3-1	8.5 V, $I_{out} = 400$ mA, short circuit protected, overtemperature protected, tube
IFX25001TC V85	SP000623112	PG-TO263-3	8.5 V, $I_{out} = 400$ mA, overtemperature protected, short circuit protected, tape & reel

SMD = Surface Mounted Device



Type	Ordering Code	Package	Description
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**Power Management ICs****5 V Linear Voltage Regulators for Industrial and Consumer Applications**

IFX20001MB V50	SP000623428	SCT595	5 V, $I_{out} = 30$ mA, Inhibit, overtemperature protected, tape & reel
IFX24401EL V50	SP000639070	PG-SSOP-14	5 V, $I_{out} = 300$ mA, short circuit protected, overtemperature protected, tape & reel
IFX24401TE V50	SP000660598	PG-TO252-5	5 V, $I_{out} = 300$ mA, short circuit protected, overtemperature protected, tape & reel
IFX25001TS V50	SP000624196	PG-TO220-3-1	5 V, $I_{out} = 400$ mA, short circuit protected, overtemperature protected, tube
IFX25001TC V50	SP000611474	PG-TO263-3	5 V, $I_{out} = 400$ mA, short circuit protected, overtemperature protected, tape & reel
IFX25001TF V50	SP000614696	PG-TO252-3	5 V, $I_{out} = 400$ mA, short circuit protected, overtemperature protected, tape & reel
IFX27001TF V50	SP000622990	PG-TO252-3	5 V, $I_{out} = 1$ A, short circuit protected, overtemperature protected, tape & reel
▼ IFX81171ME V50	SP000357832	SOT223	5 V, $I_{out} = 1$ A, short circuit protected, overtemperature protected, tape & reel

**Adjustable Linear Voltage Regulators for Industrial and Consumer Applications**

▼ IFX81171ME V	SP000357833	SOT223	adj. voltage, $I_{out} = 1$ A, short circuit protected, overtemperature protected, tape & reel
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**5 V and 15 V Linear Voltage Regulators for Industrial and Consumer Applications**

▼ IFX21004TN V51	SP000841766	PG-TO220-5	5 V and 15 V dual output, $I_{out} = 100$ mA and 30 mA, short circuit protected, overtemperature protected, tube
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**1.5 - 3.3 V Linear Voltage Regulators for Industrial and Consumer Applications**

IFX20001MB V33	SP000623344	SCT595	3.3 V, $I_{out} = 30$ mA, Inhibit, overtemperature protected, tape & reel
IFX25001ME V33	SP000623166	SOT223	3.3 V, $I_{out} = 400$ mA, short circuit protected, overtemperature protected, tape & reel
IFX25001ME V25	SP000623288	SOT223	2.5 V, $I_{out} = 400$ mA, short circuit protected, overtemperature protected, tape & reel
IFX25001TF V33	SP000623156	PG-TO252-3	3.3 V, $I_{out} = 400$ mA, short circuit protected, overtemperature protected, tape & reel
IFX27001TF V15	SP000624122	PG-TO252-3	1.5 V, $I_{out} = 1$ A, short circuit protected, overtemperature protected, tape & reel
IFX27001TF V18	SP000624104	PG-TO252-3	1.8 V, $I_{out} = 1$ A, short circuit protected, overtemperature protected, tape & reel
IFX27001TF V26	SP000624182	PG-TO252-3	2.6 V, $I_{out} = 1$ A, short circuit protected, overtemperature protected, tape & reel
IFX27001TF V33	SP000624112	PG-TO252-3	3.3 V, $I_{out} = 1$ A, short circuit protected, overtemperature protected, tape & reel
▼ IFX81171ME V33	SP000357831	SOT223	3.3 V, $I_{out} = 1$ A, short circuit protected, overtemperature protected, tape & reel

SMD = Surface Mounted Device

# Power Semiconductors

Type	Ordering Code	Package	Description
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## Power Management ICs

### 3.3 V Ultra Low Quiescent Current Linear Voltage Regulators for Industrial and Consumer Applications

IFX2931G V33	SP000539026	PG-DSO-8	3.3 V, $I_{out} = 100$ mA, overtemperature protected, tape & reel
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### 5 V Ultra Low Quiescent Current Linear Voltage Regulators for Industrial and Consumer Applications

IFX25401TB V50	SP000623298	PG-TO263-5	5 V, $I_{out} = 400$ mA, short circuit protected, overtemperature protected, tape & reel
IFX25401TE V50	SP000623308	PG-TO252-3	
IFX2931G V50	SP000431776	PG-DSO-8	5 V, $I_{out} = 100$ mA, overtemperature protected, tape & reel

### Adjustable Ultra Low Quiescent Current Linear Voltage Regulators for Industrial and Consumer Applications

IFX25401TBV	SP000611478	PG-TO263-5	adj. voltage, $I_{out} = 400$ mA, short circuit protected, overtemperature protected, tape & reel
IFX25401TEV	SP000614698	PG-TO252-3	
IFX27001TFV	SP000624090	PG-TO252-3	adj. voltage, $I_{out} = 1$ A, short circuit protected, overtemperature protected, tape & reel

### Voltage Tracker for Industrial and Consumer Applications

IFX21401MB	SP000614692	SCT595	adj. voltage, $I_{out} = 50$ mA, overtemperature protected, tape & reel
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SMD = Surface Mounted Device

Type	Ordering Code	Package	Data			
			$V_{DS}$ V	$R_{DS(on)}$ $\Omega$	$I_{PK}$ A	$f_s$ kHz

## Power Management ICs

## Integrated Power ICs

## 650 V/67 kHz

ICE2B365	SP000013999	DIP-8	650	0.45	3.0	67
ICE2B265	SP000013998	DIP-8	650	0.92	2.0	67
ICE2B165	SP000013997	DIP-8	650	3.0	1.0	67
ICE2B0565	SP000014234	DIP-8	650	4.7	0.5	67
ICE2B765I	SP000014702	I <sup>2</sup> -PAK	650	0.45	7.0	67
ICE2B765P2	SP000014701	TO220	650	0.45	7.0	67
ICE3B2565	SP000015077	DIP-8	650	0.65	2.5	67
ICE3BR0665J	SP000710564	DIP-8	650	0.65	2.5	67
ICE3B2065	SP000015080	DIP-8	650	0.92	2.0	67
ICE3B2065J	SP000390355	DIP-8	650	0.92	2.0	67
ICE3BR1765J	SP000426504	DIP-8	650	1.7	1.5	67
ICE3B1565	SP000015081	DIP-8	650	1.7	1.5	67
ICE3B1565J	SP000098876	DIP-8	650	1.7	1.5	67
▼ ICE2QR1765	SP000785528	DIP-8	650	1.7	4.03	67
ICE3B1065	SP000015076	DIP-8	650	2.95	1.0	67
ICE3B0565	SP000014967	DIP-8	650	4.7	0.5	67
ICE3B0565J	SP000064685	DIP-8	650	4.7	0.5	67
ICE3BR4765J	SP000358120	DIP-8	650	4.7	0.5	67
ICE3B0365	SP000014968	DIP-8	650	6.45	0.3	67
ICE3B0365J	SP000064720	DIP-8	650	6.45	0.3	67
ICE3BR1765JZ	SP000706896	DIP-7	650	1.7	1.5	67
▼ ICE3BR4765JZ	SP000736812	DIP-7	650	4.7	0.5	67
ICE3BR0665JF	SP000366360	TO220	650	0.59	4.8	67
ICE3BR0665JZ	SP000740644	TO220	650	0.65	4.8	67
ICE3B5565P	SP000016817	TO220	650	0.79	5.0	67
ICE3B5065P	SP000016815	TO220	650	0.95	5.0	67
ICE3BR1065JF	SP000366369	TO220	650	1.0	3.0	67
ICE3B3565P	SP000016813	TO220	650	1.55	3.5	67
ICE3B3065P	SP000016811	TO220	650	2.1	3.0	67
ICE3B2065P	SP000016809	TO220	650	3.0	2.0	67
ICE3BR2565JF	SP000366371	TO220	650	2.5	1.8	67
ICE3B0565JG	SP000077217	SO-16/12	650	4.7	0.5	67
▼ ICE3BR4765JG	SP000716242	SO-16/12	650	4.7	0.5	67
ICE3B0365JG	SP000078899	SO-16/12	650	6.45	0.3	67

SMD = Surface Mounted Device

# Power Semiconductors

Type	Ordering Code	Package	Data			
			$V_{DS}$ V	$R_{DS(on)}$ $\Omega$	$I_{PK}$ A	$f_s$ kHz

## Power Management ICs

### Integrated Power ICs 650 V/100 kHz

ICE2A365	SP000013504	DIP-8	650	0.45	3.0	100
ICE3A2565	SP000015075	DIP-8	650	0.65	2.5	100
ICE2A265	SP000013503	DIP-8	650	0.92	2.0	100
ICE3A2065	SP000015082	DIP-8	650	0.92	2.0	100
ICE3A2065ELJ	SP000477348	DIP-8	650	0.92	2.0	100
ICE3A1565	SP000015083	DIP-8	650	1.7	1.5	100
ICE3A1065LJ	SP000205733	DIP-8	650	2.9	1.0	100
ICE3A1065ELJ	SP000430884	DIP-8	650	2.9	1.0	100
ICE2A165	SP000013769	DIP-8	650	3.0	1.0	100
ICE3A0565	SP000015073	DIP-8	650	4.7	0.5	100
ICE2A0565	SP000014233	DIP-8	650	4.7	0.5	100
ICE3A0365	SP000015072	DIP-8	650	6.45	0.3	100
ICE2A765I	SP000014565	I <sup>2</sup> -PAK	650	0.45	7.0	100
ICE3A5565I	SP000016977	I <sup>2</sup> -PAK	650	0.79	5.5	100
ICE3A3565I	SP000016981	I <sup>2</sup> -PAK	650	0.95	3.5	100
ICE3A2065I	SP000016985	I <sup>2</sup> -PAK	650	3.0	2.0	100
ICE2A765P2	SP000014566	TO220	650	0.45	7.0	100
ICE3A5565P	SP000016976	TO220	650	0.79	5.5	100
ICE3A5065P	SP000016978	TO220	650	0.95	5.0	100
ICE3A3565P	SP000016980	TO220	650	0.95	3.5	100
ICE3A0365P	SP000016982	TO220	650	2.1	3.0	100
ICE3A2065P	SP000016984	TO220	650	3.0	2.0	100
ICE3A2065Z	SP000017045	DIP-7	650	0.92	2.0	100
ICE2A0565Z	SP000014235	DIP-7	650	4.7	5.0	100
ICE3A0565Z	SP000017044	DIP-7	650	4.7	5.0	100
ICE2A0565G	SP000015061	SO-16/12	650	4.7	0.5	100

### 800 V/100 kHz

ICE2A380P2	SP000089417	TO220	800	1.89	3.0	100
▼ ICE3AR0680JZ	SP000634600	DIP-7	800	0.62	0.5	100
▼ ICE3BR0680JZ	SP000775720	DIP-7	800	0.62	4.0	100
▼ ICE3QR0680Z	SP000774406	DIP-7	800	0.62	20	100
ICE2A280Z	SP000014237	DIP-7	800	0.8	2.0	100
▼ ICE3AR2280JZ	SP000730002	DIP-7	800	2.26	0.5	100
▼ ICE3BR2280JZ	SP000775698	DIP-7	800	2.26	1.5	100
▼ ICEQR2280Z	SP000775222	DIP-7	800	2.26	4.9	100
ICE2A180Z	SP000014236	DIP-7	800	3.0	1.0	100
▼ ICE2QR4780Z	SP000782770	DIP-7	800	4.7	1.95	100
▼ ICEQR2280G	SP000775242	SO-12	800	2.26	4.9	100

SMD = Surface Mounted Device

Type	Ordering Code	Package	Data		
			Switching Frequency Range kHz	$I_{Gate}$ A	$V_{CC(max)}$ V

**Power Management ICs****Power Control ICs****SMPS IC - Quasi**

ICE1QS01	SP000014266	DIP-8	<150	20	25
ICE2QR0665	SP000453680	DIP-8	<150	-	25
ICE2QR4765	SP000785534	DIP-8	<150	-	25
▼ ICE2QS03	SP000774924	DIP-8	52	-	27
ICE1QS01G	SP000081003	SO-8	<150	20	20
ICE2QS02G	SP000718534	SO-8	<150	-	27
ICE2QS03G	SP000775042	SO-8	<150	-	27
TDA16846	SP000011731	DIP-14	20 - 250	-	16
TDA16846-2	SP000013854	DIP-14	20 - 250	-	16
TDA16846-2G GEG	SP000081008	DIP-14	20 - 250	-	16
TDA16847	SP000011732	DIP-14	20 - 250	-	16
TDA16846G GEG	SP000081009	SO-14	20 - 250	-	16

**SMPS IC - PFC & CCM (continuous conduction mode) ICs**

ICE1PCS01	SP000014681	DIP-8	50 - 250	-1.5/2	21
ICE1PCS02	SP000056162	DIP-8	65	-1.5/2	21
ICE2PCS01	SP000737922	DIP-8	50 - 250	-1.5/2	25
ICE2PCS02	SP000741324	DIP-8	65	-1.5/2	25
ICE2PCS03	SP000752402	DIP-8	100	-1.5/2	25
ICE2PCS04	SP000752406	DIP-8	133	-1.5/2	25
▼ ICE2PCS05	SP000433592	DIP-8	136	-1.5/2	25
ICE1PCS01G	SP000081001	SO-8	50 - 250	-1.5/2	21
ICE2PCS01G	SP000717682	SO-8	50 - 250	-1.5/2	25
ICE2PCS02G	SP000718524	SO-8	65	-1.5/2	25
ICE2PCS03G	SP000718526	SO-8	100	-1.5/2	25
ICE2PCS04G	SP000718528	SO-8	133	-1.5/2	25
▼ ICE2PCS05G	SP000718530	SO-8	136	-1.5/2	25
▼ ICE3PCS02G	SP000639564	SO-8	65	-1.5/2	25
▼ ICE3PCS02G	SP000639566	SO-8 (tube)	65	-1.5/2	25
▼ ICE3PCS03G	SP000639568	SO-8	65	-1.5/2	26
▼ ICE3PCS03G	SP000639570	SO-8 (tube)	65	-1.5/2	26
▼ ICE3PCS01G	SP000639560	SO-14	65	-1.5/2	25
▼ ICE3PCS01G	SP000639562	SO-14 (tube)	65	-1.5/2	25

SMD = Surface Mounted Device

# Power Semiconductors

Type	Ordering Code	Package	Data		
			Switching Frequency Range kHz	$I_{Gate}$ A	$V_{CC(max)}$ V

## Power Management ICs

### Power Control ICs

#### SMPS IC - PFC & DCM (discontinuous conduction mode) ICs

TDA4862	SP000011734	DIP-8	variable	0.5	19
TDA4863	SP000013654	DIP-8	variable	0.5	20
TDA4863-2	SP000014792	DIP-8	variable	0.5	20
▼ TDA4862G GEG	SP000080989	SO-8	variable	0.5	19
TDA4863G	SP000697962	SO-8	variable	0.5	19
TDA4863-2G	SP000081017	SO-8	variable	0.5	20

#### SMPS IC - PWM-FF + PFC (CCM) Combi ICs

ICE1CS02	SP000444084	DIP-16	65	-1.5/2	26
ICE1CS02G	SP000783614	SO-16	65	-1.5/2	25
TDA16888G	SP000011722	SO-20	15 - 250	-1.0/1.5	19
TDA16888G GEG	SP000087990	SO-20	15 - 250	-1.0/1.5	19

#### SMPS IC - PWM-FF (fixed frequent) ICs

ICE3BS02	SP000014966	DIP-8	67	-0.5/0.7	22
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#### SMPS IC - PWM-FF (latched-off mode) ICs

ICE3BS02L	SP000015117	DIP-8	67	-0.5/0.7	22
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#### SMPS IC - PWM-FF (latched and frequency jitter mode) ICs

ICE3AS03LJG	SP000783724	SO-8	100	-0.17/0.39	27
ICE3BS03LJG	SP000783726	SO-8	65	-0.17/0.39	27
▼ ICE3GS03LJG	SP000812044	SO-8	130	-0.17/0.39	27
ICE3BS02L	SP000015117	DIP-8	67	-0.5/0.7	22

#### SMPS IC - PWM-FF (latched and frequency jitter mode) ICs

ICE3AS03LJG	SP000783724	SO-8	100	-0.17/0.39	27
ICE3BS03LJG	SP000783726	SO-8	65	-0.17/0.39	27

SMD = Surface Mounted Device

Type	Ordering Code	Package	Description
<b>Power Management ICs</b>			
<b>Resonant Mode Controller</b>			
▼ ICE1HS01G	SP000710658	SO-8	Half-bridge LLC resonant controller with two gate outputs, 600-kHz switching frequency, minimum number of external components, high accuracy oscillator, tape & reel
▼ ICE2HS01G	SP000793084	SO-20	High performance mode controller for half-bridge LLC resonant controller with four gate outputs and synchronous rectification drives, 30-kHz - 1-MHz switching frequency, tape & reel
<b>Fan Speed Controller ICs</b>			
■ TDA21801	SP000015019	SO-8	Fan speed controller for SMPS, adjustable fan speed, fan On/OFF, over-temperature protection (OTP), tape & reel
<b>Integrated Power Stages and DrMOS</b>			
■ TDA21106	SP000063695	SO-8	High speed gate driver with bootstrapping for dual power MOSFETs, tape & reel
■ TDA21102	SP000080999	SO-14 (dual)	High speed gate driver with bootstrapping for dual power MOSFETs, tape & reel
TDA21211	SP000464906	IQFN-40	High-performance DrMOS, power MOSFET and driver in one package, max. peak current of 35 A, input voltage range +5 V to +30 V, tape & reel
▼ TDA21220	SP000746644	IQFN-40	High-performance DrMOS, power MOSFET and driver in one package, max. peak current of 50 A, input voltage range +4.5 V to +16 V, tape & reel
<b>MOSFET Driver IC</b>			
▼ PX3516ADDG-R4	SP000704414	SuperS08	Dual MOSFET driver for synchronous rectified bridge converters, adjust. high-side and low-side MOSFET gate drive voltages for optimal efficiency, 50 A, tape & reel

SMD = Surface Mounted Device

# Power Semiconductors

Type	Ordering Code	Package	Description
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## Power Management ICs

### Function and Industrial ICs Proximity Switches

■ TCA305G	SP000080985	PG-DSO-14-1	ICs for inductive proximity switches, tube
■ TCA305G GEG	SP000080986	PG-DSO-14-1	ICs for inductive proximity switches, tape & reel
■ TCA355G	SP000080987	PG-DSO-8-1	ICs for inductive proximity switches, tube
■ TCA355G GEG	SP000080988	PG-DSO-8-1	ICs for inductive proximity switches, tape & reel
■ TCA505BG	SP000242372	P-DSO-16-1	ICs for inductive proximity switches with short-circuit protection, tube
■ TCA505BG GEG	SP000242373	P-DSO-16-1	ICs for inductive proximity switches with short-circuit protection, tape & reel

## Power Driver ICs

FZL4146G	SP000087989	PG-DSO-20-7	Short-circuit signaling, four driver circuits for driving power transistors, turn-ON threshold setting from 1.5 to 7 V
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## Phase Control

TCA785	SP000011719	P-DIP-16-1	Phase control, tube
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## Audible Signal ICs

SAE0800	SP000011614	P-DIP-8-1	Programmable single-, dual- and triple-tone gong, tube
■ SAE0800G	SP000080996	PG-DSO-8-1	
■ SAE0800G GEG	SP000080995	PG-DSO-8-1	Programmable single-, dual- and triple-tone gong, tape & reel

SMD = Surface Mounted Device



Type	Ordering Code	Package	Description
<b>Automotive Transceivers and SBCs</b>			
<b>Body System Basis Chips</b>			
TLE6263-3G	SP000314997	PG-DSO-28-6	Low speed CAN universal SBC with fault tolerant CAN-transceiver, 5-V voltage regulator, wake-up inputs, Reset generator, 8-bit SPI, tape & reel
TLE6266G	SP000013996	P-DSO-28-18	Low speed CAN door module with fault tolerant differential transceiver, watchdog (KORMORAN II), tape & reel
TLE6285G	SP000065800	P-DSO-16-4	Single wire LIN-transceiver + system regulator + reset generator adjustable reset threshold, tape & reel
TLE6286G	SP000065801	P-DSO-16-4	Single wire LIN-transceiver + system regulator, tape & reel
TLE7263E	SP000075929	PG-DSO-36-12	Integrated high speed CAN, LIN, LDO and HS switch, tape & reel
TLE8261E	SP000317792	PG-DSO-36-38	Universal system basis IC (HERMES), integrated high speed CAN, no LIN, LDO and SPI, 1 limp home output, tape & reel
TLE8261-2E	SP000454466	PG-DSO-36-38	Universal system basis IC (HERMES), integrated high speed CAN, no LIN, LDO and SPI, 3 limp home output, tape & reel
TLE8262E	SP000317793	PG-DSO-36-38	Universal system basis IC (HERMES), integrated high speed CAN, 1LIN, LDO and SPI, 1 limp home output, tape & reel
TLE8262-2E	SP000454468	PG-DSO-36-38	Universal system basis IC (HERMES), integrated high speed CAN, 1LIN, LDO and SPI, 3 limp home output, tape & reel
TLE8263E	SP000317795	PG-DSO-36-38	Universal system basis IC (HERMES), integrated high speed CAN, 2LIN, LDO and SPI, 1 limp home output, tape & reel
TLE8263-2E	SP000379937	PG-DSO-36-38	Universal system basis IC (HERMES), integrated high speed CAN, 2LIN, LDO and SPI, 3 limp home output, tape & reel
TLE8264E	SP000317796	PG-DSO-36-38	Universal system basis IC (HERMES), integrated high speed CAN, 3LIN, LDO and SPI, 1 limp home output, tape & reel
TLE8264-2E	SP000379938	PG-DSO-36-38	Universal system basis IC (HERMES), integrated high speed CAN, 3LIN, LDO and SPI, 3 limp home output, tape & reel

**Stand-alone Transceivers**

TLE6250G	SP000316311	PG-DSO-8-16	High speed CAN-transceiver according to ISO 11898, tape & reel
TLE6250G V33	SP000382100	PG-DSO-8-16	High speed CAN-transceiver according to ISO 11898, for 3.3 V microcontroller
TLE6251DS	SP000294173	PG-DSO-8-3	High speed CAN-transceiver with bus wake-up, compatible to 3.3 V and 5 V logic input levels, tape & reel
TLE6251G	SP000082094	P-DSO-14-13	High speed CAN-transceiver with bus wake-up and bus failure detection, tape & reel
TLE6251-2G	SP000407102	P-DSO-14-24	High speed CAN-transceiver with bus wake-up and bus failure detection, for mixed supply CAN networks, tape & reel
▼ TLE8250G	SP000551642	PG-DSO-8-16	High speed CAN-transceiver according ISO 11898-3, fully compatible to TLE6250G, receive-only mode input, not Enable input, for large CAN networks with high data rates, tape & reel
▼ TLE8250GVIO	SP000691818	PG-DSO-8-16	High speed CAN-transceiver according ISO 11898-3, fully compatible to TLE6250G, not Enable input, for large CAN networks with high data rates, tape & reel
TLE6254-3G	SP000692476	PG-DSO-14-13	Low speed fault tolerant CAN-transceiver according ISO 11898-3, tape & reel
TLE6255G	SP000012141	P-DSO-14-2	Single wire CAN-transceiver, tape & reel
IFX1050G	SP000613990	PG-DSO-8-16	High speed CAN-transceiver, 1 Mbit/s transmission rate, no bus wake-up capability, no wake-up inputs, tape & reel
IFX1054G	SP000613756	PG-DSO-14-13	Low speed fault tolerant CAN-transceiver, 125 Kbit/s transmission rate, bus wake-up capability, wake-up inputs, tape & reel
TLE6258-2G	SP000297762	PG-DSO-8-3	Single wire LIN-transceiver, low speed, tape & reel
TLE6259-2G	SP000316315	PG-DSO-8-16	Single wire LIN-transceiver, suitable for LIN protocol, tape & reel
TLE7259-2GE	SP000692470	PG-DSO-8-3	Enhanced LIN-transceiver with sleep mode/inhibit output, compatible to 3.3 V and 5 V logic input levels, specific LIN1.3 and LIN2.1 compliant version, tape & reel

SMD = Surface Mounted Device

# Power Semiconductors

Type	Ordering Code	Package	Description
<b>Automotive Transceivers and SBCs</b>			
<b>Stand-alone Transceivers</b> (cont'd)			
TLE7259-2GU	SP000304077	PG-DSO-8-3	Enhanced LIN-transceiver with sleep mode/inhibit output, compatible to 3.3 V and 5 V logic input levels, specific SAEJ2602 compliant version, tape & reel
TLE7269G	SP000104277	PG-DSO-14-24	Twin LIN-transceiver, compatible to 3.3 V and 5 V logic input levels, specific SAEJ2602 compliant version, tape & reel
▼ TLE8458E	SP000359988	PG-SSOP-14EP	LIN-transceiver with integrated low drop voltage regulator (LIN-LDO), 5 V, 20Kbit/s (LIN2.1 compliant), tape & reel
▼ TLE8458E V33	SP000359989	PG-SSOP-14EP	LIN-transceiver with integrated low drop voltage regulator (LIN-LDO), 3.3 V, 20 Kbit/s (LIN2.1 compliant), tape & reel
▼ TLE8458EU	SP000359992	PG-SSOP-14EP	LIN-transceiver with integrated low drop voltage regulator (LIN-LDO), 5 V, 10.4 Kbit/s (SAEJ2602 compliant), tape & reel
▼ TLE8458EU V33	SP000359993	PG-SSOP-14EP	LIN-transceiver with integrated low drop voltage regulator (LIN-LDO), 3.3 V, 10.4 Kbit/s (SAEJ2602 compliant), tape & reel
▼ TLE8458G	SP000359994	PG-DSO-8-16	LIN-transceiver with integrated low drop voltage regulator (LIN-LDO), 5 V, 20Kbit/s (LIN2.1 compliant), tape & reel
▼ TLE8458G V33	SP000359996	PG-DSO-8-16	LIN-transceiver with integrated low drop voltage regulator (LIN-LDO), 3.3 V, 20 Kbit/s (LIN2.1 compliant), tape & reel
▼ TLE8458GU	SP000359997	PG-DSO-8-16	LIN-transceiver with integrated low drop voltage regulator (LIN-LDO), 5 V, 10.4 Kbit/s (SAEJ2602 compliant), tape & reel
▼ TLE8458GU V33	SP000359999	PG-DSO-8-16	LIN-transceiver with integrated low drop voltage regulator (LIN-LDO), 3.3 V, 10.4 Kbit/s (SAEJ2602 compliant), tape & reel

## Automotive Transceivers and SBCs

### Embedded Power

TLE7809	SP000268108	PG-DSO-28-21	Integrated double low-side switch, high-side/LED driver, hall supply, wake-up inputs and LIN communication with embedded MCU (16-Kbyte flash), tape & reel
TLE7810G	SP000313890	PG-DSO-28-6	Integrated double low-side switch for automotive applications, high-side/LED driver, hall supply, wake-up inputs and LIN communication with embedded MCU (16-Kbyte flash), tape & reel
TLE7824G	SP000264461	PG-DSO-28-38	Integrated double low-side switch, high-side/LED driver, hall supply, wake-up inputs and LIN communication with embedded MCU (24-Kbyte flash), tape & reel
TLE7826G	SP000264462	PG-DSO-28-38	Integrated double low-side switch, high-side/LED driver, hall supply, wake-up inputs and LIN communication with embedded MCU (32-Kbyte flash), tape & reel

SMD = Surface Mounted Device

Type	Ordering Code	Package	Description
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**Specific Automotive ICs****Application Specific Standard Products for Restraint Systems**

TLE6710Q	SP000013708	P-MQFP-64-1	Power supply communication four squib driver airbag system ICs, tape & reel
TLE6712G	SP000013710	P-DSO-24-10	Two squib airbag firing ICs, tape & reel
TLE6714G	SP000013709	P-DSO-28-1	Quad squib airbag firing ICs, tape & reel
TLE7729T	SP000312977	PG-TSSOP-28	Quad channel airbag satellite receiver ICs (SatRIC™ ), tape & reel

**Application Specific Standard Products for Vehicle Stability - Braking (ABS/ESP)**

TLE6212	SP000451438	PG-LQFP-64-1	System-IC for ABS/Traction Control/Electronic Stability Control, tape & reel
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**Application Specific Standard Products for Gasoline Direct Injection**

TLE6270R	SP000469954	PG-DSO-36-10	Quad low side injector driver for gasoline direct injection, tape & reel
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SMD = Surface Mounted Device



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## RF & Protection Devices

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Type	Ordering Code	Package	Maximum Ratings		Characteristics ( $T_A = 25^\circ\text{C}$ )		
			$V_{\text{CEO}}$	$I_C$	$f_T$	$G$ at	$f$
			V	mA	GHz	dB	MHz

## RF Bipolar Transistors

## Low Noise Si Transistors up to 2.5 GHz

BF517	3k*	SP000010958	SOT23	15	25	2.0	–	–
■ BF775	3k*	SP000010972	SOT23	12	30	4.5	–	–
BFP181	3k*	SP000011013	SOT143	12	20	8.0	16.5	1800
■ BFP182	3k*	SP000011015	SOT143	12	35	8.0	15	1800
BFP182R	3k*	SP000011016	SOT143R	12	35	8.0	15	1800
BFP182W	3k*	SP000745176	SOT343	12	35	8.0	15.5	1800
BFP183	3k*	SP000011018	SOT143	12	65	8.0	20	900
BFP183W	3k*	SP000745244	SOT343	12	65	8.0	20	900
BFR181	3k*	SP000011047	SOT23	12	20	8.0	18	900
BFR181W	3k*	SP000750418	SOT323	12	20	8.0	18	900
BFR182	3k*	SP000011051	SOT23	12	35	8.0	18	900
BFR182W	3k*	SP000750420	SOT323	12	35	8.0	18	900
BFR183	3k*	SP000011054	SOT23	12	65	8.0	18.5	900
BFR183W	3k*	SP000750422	SOT323	12	65	8.0	18.5	900
BFR340F	3k*	SP000750426 (SP000012978)	TSFP-3	6.0	10	14.0	16	1800
BFR340L3	15k*	SP000013558	TSLP-3-1	6.0	10	14.0	17	1800
BFR35AP	3k*	SP000011060	SOT23	12	30	4.9	15	900
BFR360F	3k*	SP000750428 (SP000012979)	TSFP-3	6.0	35	14.0	15.5	1800
BFR360L3	15k*	SP000013561	TSLP-3-1	6.0	35	14.0	16.5	1800
BFR92P	3k*	SP000011062	SOT23	15	30	5.0	15	900
BFR92W	3k*	SP000750446	SOT323	15	30	5.0	15.5	900
BFS17P	3k*	SP000011073	SOT23	15	25	2.5	–	–
BFS17P	10k*	SP000011079	SOT23	15	25	2.5	–	–
BFS17S	3k*	SP000750448	SOT363	15	25	2.5	–	–
BFS17W	3k*	SP000750450	SOT323	15	25	2.5	–	–
BFS481	3k*	SP000750462	SOT363	12	20	8	19	900
BFS483	3k*	SP000750464	SOT363	12	65	8	19	900

\* order unit

() in paranthesis old ordering code of types which change to Hg-free in 2010; please refer to PCN 2008-187-A1, PCN 2009-188-A, PCN 2009-122-A

SMD = Surface Mounted Device

# RF & Protection Devices

Type	Ordering Code	Package	Maximum Ratings		Characteristics ( $T_A = 25^\circ\text{C}$ )		
			$V_{\text{CEO}}$ V	$I_{\text{C}}$ mA	$f_{\text{T}}$ GHz	$G$ dB	at $f$ MHz

## RF Bipolar Transistors

### Low Noise Si Transistors up to 5 GHz

BFP405	3k*	SP000745254	SOT343	4.5	12	25	22	1800
BFP405	10k*	SP000760326	SOT343	4.5	12	25	22	1800
BFP405F	3k*	SP000745258 (SP000012985)	TSFP-4	4.5	12	25	22	1800
▼ BFP410	3k*	SP000762244 (SP000720604)	SOT343	4.5	35	25	21	1800
BFP420	3k*	SP000745260	SOT343	4.5	35	25	22	1800
BFP420	10k*	SP000745262	SOT343	4.5	35	25	22	1800
BFP420F	3k*	SP000745268 (SP000012986)	TSFP-4	4.5	35	25	22	1800
BFP460	3k*	SP000745276	SOT343	4.5	50	22	17.5	1800
BFP460	10k*	SP000745278	SOT343	4.5	50	22	17.5	1800
BFR460L3	15k*	SP000014238	TSLP-3-1	4.5	50	22.0	17.5	1800
BFP520	3k*	SP000745280	SOT343	2.5	40	45	23	1800
BFP520F	3k*	SP000745282 (SP000012987)	TSFP-4	2.5	40	45	23	1800
BFP540	3k*	SP000745288	SOT343	4.5	80	29	21	1800
BFP540ESD	3k*	SP000745298	SOT343	4.6	80	29	21	1800
BFP540FESD	3k*	SP000745300 (SP000296093)	TSFP-4	4.7	80	29	21	1800

### Ultra Low Noise SiGe:C Transistors for use up to 12 GHz

BFP620	3k*	SP000745302	SOT343	2.3	80	65	21.5	1800
BFP620F	3k*	SP000745304 (SP000012989)	TSFP-4	2.3	80	65	21.5	1800
BFP640	3k*	SP000745306	SOT343	4.0	50	40	24	1800
BFP640	10k*	SP000750402	SOT343	4.0	50	40	24	1800
							12.5	6000
BFP640F	3k*	SP000750404 (SP000015118)	TSFP-4	4.0	50	40	24	1800
							12	6000
▼ BFP640ESD	3k*	SP000785482	SOT343	4.1	50	46	26.5	1800
							14.5	5500
▼ BFP640FESD	3k*	SP000607096	TSFP-4	4.1	50	46	27	1800
							14	5500
BFP720	3k*	SP000750410	SOT343	4.0	80	45	26.5	1800
							19.5	5500
BFP720F	3k*	SP000750412 (SP000463884)	TSFP-4	4.0	80	45	26.5	1800
							19.5	5500
▼ BFP720ESD	3k*	SP000785484 (SP000603798)	SOT343	4.2	25	43	27	1800
							20	5500
▼ BFP720FESD	3k*	SP000605554	TSFP-4	4.0	25	45	27	1800
							22	5500
▼ BFP740ESD	3k*	SP000785486	SOT343	4.0	30	47	27	1800
							19	5500
▼ BFP740FESD	3k*	SP000605556	TSFP-4	4.0	30	47	27	1800
							20.5	5500
BFR740L3RH	15k*	SP000252393	TSLP-3-9	4.0	30	42	24.5	1800
							15	5500

\* order unit

( ) in paranthesis old ordering code of types which change to Hg-free in 2010; please refer to PCN 2008-187-A1, PCN 2009-188-A, PCN 2009-122-A

SMD = Surface Mounted Device



Type	Ordering Code	Package	Maximum Ratings		Characteristics ( $T_A = 25^\circ\text{C}$ )		
			$V_{\text{CEO}}$ V	$I_{\text{C}}$ mA	$f_{\text{T}}$ GHz	$G$ dB	at $f$ MHz

## RF Bipolar Transistors

## High Linearity Si- and SiGe:C Transistors for use up to 6 GHz

BF770A	3k*	SP000010965	SOT23	12	50	5.5	13.5	900
BF771	3k*	SP000010967	SOT23	12	80	7.0	13.5	900
BF799	3k*	SP000010973	SOT23	20	35	1.1	–	–
BF799W	3k*	SP000734406	SOT323	20	35	1.1	–	–
BFP193	3k*	SP000011024	SOT143	12	80	8.0	15	900
BFP193W	3k*	SP000745248	SOT343	12	80	8.0	20	900
BFP196	3k*	SP000011027	SOT143	12	100	7.2	16	900
BFP196R	3k*	SP000761484 (SP000011028)	SOT143R	12	100	7.2	16	900
BFP196W	3k*	SP000745250	SOT343	12	100	7.2	16	900
BFP450	3k*	SP000745270	SOT343	4.5	100	24	14	1800
BFP450	10k*	SP000745272	SOT343	4.5	100	24	14	1800
BFP650	3k*	SP000750406	SOT343	4.0	150	36	21.5 11	1800 6000
BFP650F	3k*	SP000750408 (SP000368489)	TSFP-4	4.0	150	42	21.5 10.5	1800 5500
BFP740F	3k*	SP000750416 (SP000055205)	TSFP-4	4.0	160	42	27.5 19	1800 5500
▼ BFP750	3k*	SP000876304	SOT343	4.0	90	41	22.5 14	1800 6000
BFR750L3RH	15k*	SP000252588	TSLP-3-9	4.0	90	37	11.8 8	1800 5500
BFQ19S	1k*	SP000011042	SOT89	15	75	5.1	11.8	900
BFR106	3k*	SP000011044	SOT23	15	100	4.9	12.5	900
BFR193	3k*	SP000011056	SOT23	12	80	8.0	14.5	900
BFR193F	3k*	SP000750424 (SP000012976)	TSFP-3	12	80	8.0	14.5	900
BFR193W	3k*	SP000734404	SOT323	12	80	8.0	15.5	900
BFR193L3	3k*	SP000013557	TSLP-3-1	12	150	8.0	19	900
BFR380F	15k*	SP000750444 (SP000012981)	TSFP-3	6.0	80	14.0	13.5	1800
BFR380L3	15k*	SP000013562	TSLP-3-1	6.0	80	14.0	13.5	1800
BFR93A	3k*	SP000011066	SOT23	12	50	6.0	13.5	900
BFR93AW	3k*	SP000734402	SOT323	12	50	6.0	15	900

\* order unit

( ) in paranthesis old ordering code of types which change to Hg-free in 2010; please refer to PCN 2008-187-A1, PCN 2009-188-A, PCN 2009-122-A

SMD = Surface Mounted Device

## RF & Protection Devices

Type	Ordering Code	Package	Maximum Ratings		Characteristics ( $T_A = 25^\circ\text{C}$ )		
			$V_{\text{CEO}}$ V	$I_{\text{C}}$ mA	$f_{\text{T}}$ GHz	$G$ dB	at $f$ MHz

### RF Bipolar Transistors

#### Biased Low Noise RF Transistors

▼ BGR405	3k*	SP000750466	SOT343	4.5	12	0.4	7.0	1800
▼ BGR420	3k*	SP000750468	SOT343	4.5	25	0.4	15.5	1800

Type	Ordering Code	Package	Maximum Ratings		Characteristics ( $T_A = 25^\circ\text{C}$ )	
			$V_{\text{S}}$ V	$I_{\text{D}}$ mA	$V_{\text{drop}}$ V	vs $V_{\text{S}}$ %/V

### Active Bias Controller for RF Transistors

BCR400W	3k*	SP000745168	SOT343	18	10	0.65	5
BCR410W	3k*	SP000745924	SOT343	18	0.5	0.11	2

Type	Ordering Code	Packages	Operation Ranges		Characteristics	
			$f$ GHz	$V_{\text{dd}}$ V	Insertion Loss dB	Isolation dB

### RF Switches

#### SPDT RF Switches

BGS12AL7-4	7.5k*	SP000427434	TSLP-7-4	0.03 - 3.0	2.4 - 2.8	0.4	32
BGS12AL7-6	7.5k*	SP000531668	TSLP-7-6	0.03 - 3.0	2.4 - 2.8	0.4	32
BGS12AL7-6	7.5k*	SP000531668	TSLP-7-6	0.03 - 3.0	2.4 - 2.8	0.4	32

\* order unit

( ) in paranthesis old ordering code of types which change to Hg-free in 2010; please refer to PCN 2008-187-A1, PCN 2009-188-A, PCN 2009-122-A

SMD = Surface Mounted Device

Type	Ordering Code	Package	Maximum Ratings		Characteristics ( $T_A = 25^\circ\text{C}$ )			
			$V_D$	$I_D$	$NF$	$G$	at	$f$
			V	mA				

## RF MMICs

## Broadband and Driver Amplifiers

BGA416	3k*	SP000013607	SOT143	6.0	20	1.3	23	900
BGA427	3k*	SP000753506	SOT343	6.0	25	2.2	18.5	1800
BGA612	3k*	SP000753510	SOT343	2.8	80	2.35	16	2000
BGA614	3k*	SP000753512	SOT343	2.9	80	2.3	17	2000
BGA616	3k*	SP000753514	SOT343	4.5	80	2.9	17.5	2000

## Low Noise Amplifiers

## GPS LNA

▼ BGA231L7	7.5k*	SP000871206	TSLP-7-1	3.6	20	0.75	16	1575
BGA428	3k*	SP000753508	SOT363	4.0	12	1.4	20	1800
BGA461	7.5k*	SP000463628	TSLP-7-1	3.6	10	1.0	19	1575
BGA615L7	7.5k*	SP000016766	TSLP-7-1	3.5	10	0.9	18	1500
BGA622L7	7.5k*	SP000017535	TSLP-7-1	3.5	10	1.1	16	2140
BGA715L7	7.5k*	SP000430024	TSLP-7-1	3.6	10	0.75	20	1575
▼ BGA915N7	7.5k*	SP000849368	TSNP-7-6	3.6	20	0.7	15.5	1575
BGM781N11	7.5k*	SP000684730	TSNP-11-2	3.6	25	1.7	18.6	1575

## Mobile TV LNA

BGA728L7	7.5k*	SP000409848	TSLP-7-1	3.6	20	1.3	15.75	470
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## WLAN/WiMax LNA

BGA622	3k*	SP000753516	SOT343	3.5	10	1.0	14.8	1575
▼ BGA628L7	7.5k*	SP000529594	TSLP-7-1	3.5	10	0.9	16	2400
▼ BGA758L7	7.5k*	SP000671390	TSLP-7-1	4.0	12	1.0	11	5500

## UMTS/3G LNA

BGA711L7	7.5k*	SP000417112	TSLP-7-1	3.6	10	1.1	17	2100
BGA734L16	7.5k*	SP000293791	TSLP-16-1	3.6	10	1.2	15	1800
BGA735N16	7.5k*	SP000659248	TSNP-16-1	3.6	10	1.1	16	1900
BGA736L16	7.5k*	SP000366348	TSLP-16-1	3.6	10	1.0	16.1	1900
▼ BGA748L16	7.5k*	SP000608112	TSLP-16-1	3.6	10	1.1	16.5	1960
▼ BGA748N16	7.5k*	SP000686912	TSNP-16-1	3.6	10	1.1	16.5	1960
BGA751L7	7.5k*	SP000417120	TSLP-7-1	3.6	10	1.05	16	800
▼ BGA771N16	7.5k*	SP000417116	TSNP-16-1	3.6	10	1.1	16	1900
▼ BGA777L7	7.5k*	SP000627608	TSLP-7-1	3.6	10	1.2	16	2650

\* order unit

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SMD = Surface Mounted Device

## RF & Protection Devices

Type	Ordering Code	Package	Maximum Ratings		Characteristics ( $T_A = 25^\circ\text{C}$ )		
			$V_D$ V	$I_D$ mA	$NF$ dB	$G$ dB	at $f$ MHz

### RF MMICs

#### Broadband/Wideband/FM+DVB Broadcast LNA

▼ BGM704N7	7.5k*	SP000746764	TSNP-7-1	3.0	25	3.5	12	100
BGB707L7ESD	7.5k*	SP000531308	TSLP-7-1	4.0	25	1.0	15	100
▼ BGB717L7ESD	7.5k*	SP000555608	TSLP-7-1	4.0	25	1.0	12	100
▼ BGB717L7ESD	20k*	SP000638992	TSLP-7-1	4.0	25	1.0	12	100
BGB741L7ESD	7.5k*	SP000442946	TSLP-7-1	4.0	30	1.15	18	1900

\* order unit

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SMD = Surface Mounted Device

Type	Ordering Code	Package	Maximum Ratings		Characteristics ( $T_A = 25^\circ\text{C}$ )					
			$V_{R\text{ max}}$	$I_{F\text{ max}}$	$C_T$	at	$V_R$	$r_F$	at	$I_F$
			V	mA	pF		V	$\Omega$		mA

## RF PIN Diodes

## Antenna Switching

BAR50-02L	15k*	SP000013603	TSLP-2-1	50	100	0.24	1	3.00	10
BAR50-02V	3k*	SP000742882	SC79	50	100	0.24	1	3.00	10
BAR50-03W	3k*	SP000012920	SOD323	50	100	0.24	1	3.00	10
BAR61 (Triple)	3k*	SP000010169	SOT143	100	140	0.25	50	7.00	10
BAR63-02L	15k*	SP000013537	TSLP-2-1	50	100	0.21	5	1.00	10
BAR63-02V	3k*	SP000742888	SC79	50	100	0.21	5	1.00	10
BAR63-02W	3k*	SP000742890	SCD80	50	100	0.21	5	1.00	10
BAR63-02W	10k*	SP000742894	SCD80	50	100	0.21	5	1.00	10
BAR63-03W	3k*	SP000010172	SOD323	50	100	0.21	5	1.00	10
BAR63-04 (Dual)	3k*	SP000012206	SOT23	50	100	0.21	5	1.00	10
BAR63-04W (Dual)	3k*	SP000742896	SOT323	50	100	0.21	5	1.00	10
BAR63-05 (Dual)	3k*	SP000012207	SOT23	50	100	0.21	5	1.00	10
BAR63-05W (Dual)	3k*	SP000766086	SOT323	50	100	0.21	5	1.00	10
BAR63-06 (Dual)	3k*	SP000012208	SOT23	50	100	0.21	5	1.10	10
BAR63-06W (Dual)	3k*	SP000743402	SOT323	50	100	0.21	5	1.00	10
BAR64-02LRH	15k*	SP000051041	TSLP-2-7	150	100	0.23	20	2.10	10
BAR64-02V	3k*	SP000743408	SC79	150	100	0.23	20	2.10	10
BAR64-03W	3k*	SP000010179	SOD323	150	100	0.23	20	2.10	10
BAR64-04 (Dual)	3k*	SP000012211	SOT23	150	100	0.23	20	2.10	10
BAR64-04W (Dual)	3k*	SP000743414	SOT323	150	100	0.23	20	2.10	10
BAR64-05 (Dual)	3k*	SP000012212	SOT23	150	100	0.23	20	2.10	10
BAR64-05 (Dual)	10k*	SP000012214	SOT23	150	100	0.23	20	2.10	10
BAR64-05W (Dual)	3k*	SP000734362	SOT323	150	100	0.23	20	2.10	10
BAR64-05W (Dual)	10k*	SP000743442	SOT323	150	100	0.23	20	2.10	10
BAR64-06 (Dual)	3k*	SP000012213	SOT23	150	100	0.23	20	2.10	10
BAR64-06W (Dual)	3k*	SP000743444	SOT323	150	100	0.23	20	2.10	10
BAR64-07 (Dual)	3k*	SP000010184	SOT143-4	150	100	0.23	20	2.10	10
BAR65-02V	3k*	SP000743446	SC79	30	100	0.60	1	0.56	10
BAR65-03W	3k*	SP000010186	SOD323	30	100	0.60	1	0.56	10
BAR66 (Dual)	3k*	SP000010187	SOT23	150	200	0.40	3	1.50	5
BAR66 (Dual)	10k*	SP000737168	SOT23	150	200	0.40	3	1.50	5
BAR67-02V	3k*	SP000743448	SC79	150	200	0.35	5	1.00	10
BAR67-04 (Dual)	3k*	SP000268691	SOT23	150	200	0.35	5	1.00	10
BAR81W	3k*	SP000743450	SOT343	30	100	0.60	1	0.70	5
BAR86-02LRH	15k*	SP000653272	TSLP-2-7	50	100	0.15	10	0.56	5
BAR88-02V	3k*	SP000743452	SC79	80	100	0.30	1	0.80	10
BAR88-02LRH	15k*	SP000051042	TSLP-2-7	80	100	0.30	1	0.80	10
BAR89-02LRH	15k*	SP000051043	TSLP-2-7	80	100	0.25	1	0.80	10
BAR89-02LRH	50k*	SP000083407	TSLP-2-7	80	100	0.25	1	0.80	10
BAR90-02LRH	15k*	SP000051045	TSLP-2-7	80	100	0.25	1	0.80	10
BAR90-02LS	15k*	SP000200323	TSSLP-2-1	80	100	0.25	1	0.80	10

\* order unit

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SMD = Surface Mounted Device

## RF & Protection Devices

Type	Ordering Code	Package	Maximum Ratings		Characteristics ( $T_A = 25^\circ\text{C}$ )					
			$V_{R \max}$	$I_{F \max}$	$C_T$	at	$V_R$	$r_F$	at	$I_F$
			V	mA	pF		V	$\Omega$		mA

### RF PIN Diodes

#### Band Switching + RF Attenuation

BA592	3k*	SP000010141	SOD323	35	100	0.85	3	0.36	10
BA592	10k*	SP000010142	SOD323	35	100	0.85	3	0.36	10
BA595	3k*	SP000010146	SOD323	50	50	0.26	10	5.00	10
BA595	10k*	SP000010148	SOD323	50	50	0.26	10	5.00	10
BA885	3k*	SP000010151	SOT23	50	100	0.28	10	5.00	10
BA892	3k*	SP000734344	SCD80	35	100	0.85	3	0.36	10
BA892	8k*	SP000745042	SCD80	35	100	0.85	3	0.36	10
BA892	10k*	SP000734328	SCD80	35	100	0.85	3	0.36	10
BA892-02V	3k*	SP000745054	SC79	35	100	0.85	3	0.36	10
BA892-02V	8k*	SP000745052	SC79	35	100	0.85	3	0.36	10
BA892-02V	10k*	SP000745060	SC79	35	100	0.85	3	0.36	10
BA895	3k*	SP000745062	SCD80	50	50	0.23	10	4.50	10
BAR14-1 (Dual)	3k*	SP000010164	SOT23	100	140	0.25	50	7.00	10
BAR15-1 (Dual)	3k*	SP000010163	SOT23	100	140	0.25	50	7.00	10
BAR16-1 (Dual)	3k*	SP000010165	SOT23	100	140	0.25	50	7.00	10
BAR61 (Triple)	3k*	SP000010169	SOT143	100	140	0.25	50	7.00	10
BAT18-04 (Dual)	3k*	SP000010290	SOT23	35	100	0.92	1	0.36	10
BAT18-05 (Dual)	3k*	SP000010291	SOT23	35	100	0.92	1	0.36	10

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SMD = Surface Mounted Device

Type	Ordering Code		Package	Maximum Ratings		Characteristics ( $T_A = 25^\circ\text{C}$ )			
				$V_R$	$I_F$	$C_T$	at	$V_R$	$C_{T1}/C_{T2}$
				V	mA	pF		V	

**RF Varactor Diodes****FM Tuner**

BB804SF1 (Dual)	3k*	SP000010425	SOT23	20	50	43.0 ... 44.5	2	1.70
BB804SF2 (Dual)	3k*	SP000010426	SOT23	20	50	44.0 ... 45.5	2	1.70
BB814GR1 (Dual)	3k*	SP000010433	SOT23	20	50	43.0 ... 44.5	2	2.05 ... 2.25
BB814GR2 (Dual)	3k*	SP000010435	SOT23	20	50	45.0 ... 46.5	2	2.05 ... 2.25
BB844 (Dual)	3k*	SP000013388	SOT23	18	50	42.5 ... 45	2	3.20 ... 3.80
BB914 (Dual)	3k*	SP000010445	SOT23	20	50	42.5 ... 45	2	2.28 ... 2.42

**SAT Tuner**

BB831	3k*	SP000012250	SOD323	30	20	7.8 ... 9.8	1	8.60
BB833	3k*	SP000010437	SOD323	30	20	8.5 ... 10	1	12.40
BB837	3k*	SP000010441	SOD323	30	20	6.0 ... 7.2	1	12.20
BB857 matched	3k*	SP000745128	SCD80	30	20	6.0 ... 7.2	1	12.00

**UHF and VHF Tuner**

BB439 matched	3k*	SP000010372	SOD323	30	20	26 ... 32	3	5 ... 6.5
BB535 matched	3k*	SP000010375	SOD323	30	20	17.5 ... 20	1	8.2 ... 9.8
▼ BB535 unmatched	3k*	SP000010377	SOD323	30	20	17.5 ... 20	1	8.2 ... 9.8
BB545 matched	3k*	SP000010383	SOD323	30	20	18.5 ... 21.5	1	9 ... 11
BB555 matched	3k*	SP000733802	SCD80	30	20	17.5 ... 20	1	6.7
BB555 matched	8k*	SP000745068	SCD80	30	20	17.5 ... 20	1	6.7
BB555-02V matched	3k*	SP000745088	SC79	30	20	17.5 ... 20	1	8.2 ... 9.8
BB555-02V matched	8k*	SP000745092)	SC79	30	20	17.5 ... 20	1	8.2 ... 9.8
BB565 matched	3k*	SP000745094	SCD80	30	20	18.5 ... 21.5	1	7.2
▼ BB565 unmatched	3k*	SP000745096	SCD80	30	20	18.5 ... 21.5	1	7.2
▼ BB565 matched	8k*	SP000842826	SCD80	30	20	18.5 ... 21.5	1	7.2
BB565 matched	10k*	SP000734346 (SP000010391)	SCD80	30	20	18.5 ... 21.5	1	7.2
BB565-02V matched	3k*	SP000745098 (SP000013416)	SC79	30	20	18.5 ... 21.5	1	9 ... 11
BB639 matched	3k*	SP000010401	SOD323	30	20	36 ... 42	1	13.5
BB639C matched	3k*	SP000010396	SOD323	30	20	36 ... 42	1	11.1
BB639C unmatched	3k*	SP000010398	SOD323	30	20	36 ... 42	1	11.1
BB640 matched	3k*	SP000010406	SOD323	30	20	62 ... 76	1	19.5
BB644 matched	3k*	SP000010411	SOD323	30	20	39 ... 44.5	1	11.8
BB659 matched	3k*	SP000745102	SCD 80	30	20	36 ... 40	1	14.7
BB659C matched	3k*	SP000734324	SCD80	30	20	36 ... 42	1	11.1
BB659C matched	8k*	SP000745104	SCD80	30	20	36 ... 42	1	11.1
BB659C matched	10k*	SP000734342	SCD80	30	20	36 ... 42	1	11.1
BB659C-02V matched	3k*	SP000745108	SC79	30	20	36.5 ... 42	1	9.5 ... 11.1
BB659C-02V unmatched	3k*	SP000745110	SC79	30	20	36.5 ... 42	1	9.5 ... 11.1
BB659C-02V matched	8k*	SP000745112	SC79	30	20	36.5 ... 42	1	9.5 ... 11.1

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# RF & Protection Devices

Type	Ordering Code	Package	Maximum Ratings		Characteristics ( $T_A = 25^\circ\text{C}$ )			
			$V_R$ V	$I_F$ mA	$C_T$ pF	at	$V_R$ V	$C_{T1}/C_{T2}$

## RF Varactor Diodes

### UHF and VHF Tuner (cont'd)

BB664 matched	3k*	SP000745114	SCD80	30	20	39 ... 44.5	1	11.8
BB664-02V matched	3k*	SP000745118	SC79	30	20	39 ... 44.5	1	11.8
BB669 matched	3k*	SP000010419	SOD323	30	20	51 ... 61.5	1	15.5
BB689 matched	3k*	SP000734326	SCD80	30	20	51 ... 61.5	1	15.5
BB689 unmatched	3k*	SP000745122 (SP000010422)	SCD80	30	20	51 ... 61.5	1	15.5
▼ BB689 matched	8k*	SP000842828	SCD80	30	20	51 ... 61.5	1	15.5
BB689 matched	10k*	SP000745120	SCD80	30	20	51 ... 61.5	1	15.5
BB689-02V matched	3k*	SP000745124	SC79	30	20	51 ... 61.5	1	15.5
▼ BB689-02V unmatched	3k*	SP000745126	SC79	30	20	51 ... 61.5	1	15.5

### VCO and Low Voltage Tuner

■ BBY51-02L	15k*	SP000014590	TSLP-2-1	7	20	4.5 ... 6.1	1	1.75
BBY51-02W	3k*	SP000743540	SCD80	7	20	4.5 ... 6.1	1	1.75
BBY51-03W	3k*	SP000010453	SOD323	7	20	4.5 ... 6.1	1	1.75
BBY52-02L	15k*	SP000014591	TSLP-2-1	7	20	1.4 ... 2.2	1	1.60
BBY52-02W	3k*	SP000743548	SCD80	7	20	1.4 ... 2.2	1	1.60
BBY53-02L	15k*	SP000014592	TSLP-2-1	6	20	4.8 ... 5.8	1	2.20
BBY53-02V	3k*	SP000743550	SC79	6	20	4.8 ... 5.8	1	2.20
BBY53-02W	3k*	SP000743552	SCD80	6	20	4.8 ... 5.8	1	2.20
BBY53-03W	3k*	SP000010461	SOD323	6	20	4.8 ... 5.8	1	2.20
BBY53-05W (Dual)	3k*	SP000743554	SOT323	6	20	4.8 ... 5.8	1	2.20
BBY55-02V	3k*	SP000743556	SC79	16	20	14.0 ... 16	1	2.50
BBY55-02W	3k*	SP000743558	SCD80	16	20	14.0 ... 16	1	2.50
BBY55-03W	3k*	SP000012238	SOD323	16	20	14.0 ... 16	1	2.50
BBY56-02W	3k*	SP000734340	SCD80	10	20	59.0 ... 67	1	2.45
BBY56-03W	3k*	SP000012239	SOD323	10	20	59.0 ... 67	1	2.45
BBY57-02V	3k*	SP000743560	SC79	10	20	16.5 ... 18.6	1	2.45
BBY57-02W	3k*	SP000743562	SCD80	10	20	16.5 ... 18.6	1	2.45
BBY57-05W (Dual)	3k*	SP000743564	SOT323	10	20	16.5 ... 18.6	1	2.45
BBY58-02V	3k*	SP000743566	SC79	10	20	17.5 ... 19.3	1	2.15
BBY58-02W	3k*	SP000743570 (SP000012235)	SCD80	10	20	17.5 ... 19.3	1	2.15
BBY58-03W	3k*	SP000012240	SOD323	10	20	17.5 ... 19.3	1	2.15
BBY58-05W (Dual)	3k*	SP000743572	SOT323	10	20	17.5 ... 19.3	1	2.15
BBY58-06W (Dual)	3k*	SP000743574	SOT323	10	20	17.5 ... 19.3	1	2.15
BBY65-02V	3k*	SP000743576	SC79	15	50	20.25	1	4.55
BBY66-02V	3k*	SP000743580	SC79	12	50	66.0 ... 71.5	1	5.41
BBY66-05W	3k*	SP000743582	SOT323	12	50	66.0 ... 71.5	1	5.41

\* order unit

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SMD = Surface Mounted Device



Type	Ordering Code	Package	Maximum Ratings			Characteristics ( $T_A = 25^\circ\text{C}$ )					
			$V_{DS}$	$I_D$	$P_{tot}$	$G_{ps}$	$F$ at	$V_{DS}$	$I_D$	$f$	$g_{fs}$
			V	mA	mW	dB	dB	V	mA	MHz	mS

**RF MOSFETs****Dual Intelligent Switching**

BG3430R	3k*	SP000753498	SOT363	8	25	200	25	1.30	5	14	800	33
BG5412K	3k*	SP000753502	SOT363	8	25	200	24	1.20	5	10	800	33

**Dual Semi Biased**

BG3123	3k*	SP000753490	SOT363	8	25	160	24	1.30	5	10	800	25/30
BG3123R	3k*	SP000753492	SOT363	8	25	160	24	1.30	5	10	800	25/30
BG3130	3k*	SP000753494	SOT363	8	25	160	24	1.30	5	10	800	33/33
BG3130R	3k*	SP000753496	SOT363	8	25	160	24	1.30	5	10	800	33/33
BG5120K	3k*	SP000753500	SOT363	8	20	200	24	1.20	5	10	800	33

**Single Semi Biased**

BF2030	3k*	SP000012219	SOT143	14	40	200	–	2.0	5	10	800	31
BF2030R	3k*	SP000012220	SOT143R	14	40	200	–	2.0	5	10	800	31
BF2030W	3k*	SP000752012	SOT343	14	40	200	–	2.0	5	10	800	31
BF2030W	10k*	SP000752046	SOT343	14	40	200	–	2.0	5	10	800	31
BF2040	3k*	SP000012215	SOT143	8	20	200	21	1.7	5	15	800	45
BF2040R	3k*	SP000012216	SOT143R	8	20	200	21	1.7	5	15	800	45
BF2040W	3k*	SP000753484	SOT343	8	20	200	23	1.6	5	15	800	45
BF5020	3k*	SP000474404	SOT143	8	25	200	26	1.2	5	10	800	34
BF5020R	3k*	SP000474406	SOT143R	8	25	200	26	1.2	5	10	800	34
BF5020W	3k*	SP000753486	SOT343	8	25	200	26	1.2	5	10	800	34
BF5030	3k*	SP000437952	SOT143	8	25	200	24	1.3	3	10	800	41
BF5030R	3k*	SP000437954	SOT143R	8	25	200	24	1.3	3	10	800	41
BF5030W	3k*	SP000753488	SOT343	8	25	200	24	1.3	3	10	800	41

**Single Full Biased**

BF1005	3k*	SP000010946	SOT143	8	25	200	18	1.40	5	10	800	24
BF1005S	3k*	SP000010949	SOT143	8	25	200	19	1.60	5	12	800	30
▼ BF1005R	3k*	SP000010947	SOT143R	8	25	200	18	1.40	5	10	800	24
BF1009S	3k*	SP000010955	SOT143	12	25	200	22	1.40	9	12	800	30
BF1009SR	3k*	SP000010956	SOT143R	12	25	200	22	1.40	9	12	800	30

**Single Non Biased**

BF998	3k*	SP000010978	SOT143	12	30	200	20	1.00	8	10	800	24
BF998R	3k*	SP000010979	SOT143R	12	30	200	20	1.00	8	10	800	24
BF999	3k*	SP000010985	SOT23	20	30	200	25	1.00	10	10	200	16
BF999	10k*	SP000426300	SOT23	20	30	200	25	1.00	10	10	200	16

\* order unit

( ) in paranthesis old ordering code of types which change to Hg-free in 2010;  
please refer to PCN 2008-187-A1, PCN 2009-188-A, PCN 2009-122-A

SMD = Surface Mounted Device

# RF & Protection Devices

Type	Ordering Code	Package	Maximum Ratings		Characteristics ( $T_A = 25^\circ\text{C}$ )	
			$V_R$ V	$I_F$ mA	$V_F$ mV	at $I_F$ mA

## RF Schottky Diodes

### RF Mixer

BAT15-02LRH	15k*	SP000055124	TSLP-2-7	4	110	230	1
BAT15-02LS	15k*	SP000273991	TSSLP-2-1	4	110	230	1
BAT15-02LS	70k*	SP000703608	TSSLP-2-1	4	110	230	1
BAT15-03W	3k*	SP000010272	SOD323	4	110	230	1
BAT15-04R	3k*	SP000659920	SOT23	4	110	230	1
BAT15-04W (Dual)	3k*	SP000743458	SOT323	4	110	230	1
BAT15-05W (Dual)	3k*	SP000743460	SOT323	4	110	230	1
BAT15-099 (Dual)	3k*	SP000010273	SOT143	4	110	230	1
BAT15-099 (Dual)	10k*	SP000010275	SOT143	4	110	230	1
■ BAT15-099LRH (Dual)	15k*	SP000055343	TSLP-4-7	4	110	230	1
BAT17	3k*	SP000010280	SOT23	4	130	340	1
BAT17-04 (Dual)	3k*	SP000010283	SOT23	4	130	340	1
BAT17-04W (Dual)	3k*	SP000743462	SOT323	4	130	340	1
BAT17-05 (Dual)	3k*	SP000010285	SOT23	4	130	340	1
BAT17-05W (Dual)	3k*	SP000743464 (SP000012243)	SOT323	4	130	340	1
BAT17-06W (Dual)	3k*	SP000743466 (SP000012244)	SOT323	4	130	340	1
BAT17-07 (Dual)	3k*	SP000010289	SOT143	4	130	350	1
BAT24-02LS	15k*	SP000304927	TSSLP-2-1	4	110	230	1

### RF Signal Detection + Power Leveling

■ BAT62	3k*	SP000010300	SOT143	40	20	580	2
BAT62-02L	15k*	SP000016963	TSLP-2-1	40	20	580	2
▼ BAT62-02LS	15k*	SP000273996	TSSLP-2-1	40	20	580	2
BAT62-02W	3k*	SP000743522	SCD80	40	20	580	2
BAT62-03W	3k*	SP000010303	SOD323	40	20	580	2
BAT62-07W (Dual)	3k*	SP000743524	SOT343	40	20	580	2
BAT63-02V	3k*	SP000743526	SC79	3	100	190	1
BAT63-07W	3k*	SP000743534	SOT343	3	100	190	1
BAT68	3k*	SP000012514	SOT23	8	130	320	1
BAT68-04 (Dual)	3k*	SP000010320	SOT23	8	130	320	1
BAT68-04W (Dual)	3k*	SP000743536	SOT323	8	130	320	1
BAT68-06 (Dual)	3k*	SP000010322	SOT23	8	130	320	1
BAT68-06W (Dual)	3k*	SP000743538	SOT323	8	130	320	1

\* order unit

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SMD = Surface Mounted Device

Type	Ordering Code	Package	Characteristics		
			$V_{BR(min)}$ V	GSM- Rejection @900 MHz dB	$V_{ESD(min)}$ kV

**ESD and EMI Protection Devices and Filters****Infineon® Hipac  
Audio Line Interfaces**

BGF100	3k*	SP000014215	S-WLP-11-1	4.0	50	15
BGF113	4.5k*	SP000415014	S-WLP-8-6	4.0	50	15
BGF200	3k*	SP000055123	S-WLP-8-1	4.0	50	15

**Data Interfaces (LCD-, Camera-, Keypad interface protection, I/O data lines)**

BGF108C	4.5k*	SP000482542	S-WLP-18-4	4.0	22	15
BGF109C	4.5k*	SP000465532	S-WLP-24-9	4.0	28	15

**General Purpose**

BGF112	4.5k*	SP000459860	S-WLP-5-1	4.0	34	15
BGF119	9k*	SP000681630	S-WLP-4-1	4.0	34	15
▼ BGF121	4.5k*	SP000506472	S-WLP-4-1	1.0	–	15
BGF121	9k*	SP000681628	S-WLP-4-1	1.0	–	15

**MMIC-, SD-, µSD-Card and SIM-Card Interfaces**

▼ BGF104C	4.5k*	SP000703762	S-WLP-16-3	5.0	12	15
▼ BGF106C	4.5k*	SP000646832	S-WLP-8-11	5.0	14	15
▼ BGF117	4.5k*	SP000737100	S-WLP-16-4	5.0	10	15

Type	Ordering Code	Package	Characteristics		
			Passband MHz	Insertion Loss dB	Ripple dB

**RF Filtering**

BGH92M	7.5k*	SP000067493	TSLP-7-4	824 – 915	2.2	0.2
BGH182M	7.5k*	SP000065685	TSLP-7-4	1710 – 1910	2.6	0.2

\* order unit

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SMD = Surface Mounted Device

## RF & Protection Devices

Type	Ordering Code	Package	Characteristics		
			$V_{RWM}$ V	<i>EFT</i> IEC61000-4-4 A	$V_{ESD}$ IEC61000-4-2 kV

### ESD and EMI Protection Devices and Filters

#### TVS Diodes for ESD Protection on Audio, Speaker, Headset Lines

Implementation of these devices in some other application categories is possible. Please consult your Infineon Sales contact.

ESD5V3S1B-02LRH	15k*	SP000558068	TSLP-2-17	+/-5.3	50	+/-20
▼ ESD5V3S1B-02LS	15k*	SP000685350	TSLP-2-17	+/-5.3	40	+/-17

#### TVS Diodes for ESD Protection in RF Applications (GPS antenna, FM radio, Mobile TV, Bluetooth, etc.)

Implementation of these devices in some other application categories is possible. Please consult your Infineon Sales contact.

ESD1P0RFS	3k*	SP000753518	SOT363	70	40	+/-20
ESD1P0RFW	3k*	SP000753520	SOT323	70	40	+/-20
ESD0P4RFL	15k*	SP000396832	TSLP-4-7	50	40	+/-15
ESD0P8RFL	15k*	SP000362197	TSLP-4-7	50	40	+/-20
▼ ESD5V3L1U-02LRH	15k*	SP000781844	TSLP-2-17	5.3	80	+/-30
ESD0P2RF-02LRH	15k*	SP000516754	TSLP-2-17	+/-5.3	40	+/-20
ESD0P2RF-02LS	15k*	SP000516752	TSSLP-2-1	+/-5.3	40	+/-20

#### TVS Diodes for ESD Protection of High Speed Digital Lines (USB 2.0/3.0, HDMI 1.3, Mobile HDMI Link, MIPI, etc.)

Implementation of these devices in some other application categories is possible. Please consult your Infineon Sales contact.

ESD3V3U1U-02LRH	15k*	SP000390728	TSLP-2-7	3.3	50	+/-20
ESD3V3U1U-02LS	15k*	SP000394145	TSSLP-2-1	3.3	50	+/-20
ESD5V3U1U-02LRH	15k*	SP000394151	TSLP-2-7	5.3	50	+/-20
ESD5V3U1U-02LS	15k*	SP000394147	TSSLP-2-1	5.3	50	+/-20
ESD5V3U2U-03F	3k*	SP000753526	TSFP-3-1	5.3	40	+/-20
ESD5V3U2U-03LRH	15k*	SP000427412	TSLP-3-7	5.3	40	+/-20
ESD5V3U4RRS	3k*	SP000753528	SOT363	5.3	50	+/-15
ESD5V3U4U-HDMI	7.5k*	SP000485506	TSLP-9-1	5.3	40	+/-20
▼ ESD3V3U4ULC	7.5k*	SP000844018	TSLP-9-1	3.3	40	+/-20

\* order unit

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SMD = Surface Mounted Device

Type	Ordering Code	Package	Characteristics		
			$V_{RWM}$ V	<i>EFT</i> IEC61000-4-4 A	$V_{ESD}$ IEC61000-4-2 kV

**ESD and EMI Protection Devices and Filters****TVS Diodes for ESD/Transient Protection in Human Interface Devices (keypad, keyboard, touchpad, buttons, etc.)**

Implementation of these devices in some other application categories is possible. Please consult your Infineon Sales contact.

ESD8V0L1B-02EL	15k*	SP000235246	TSLP-2-18	-8 ... 14	40	+/-25
ESD8V0L1B-02EL	50k*	SP000257037	TSLP-2-18	-8 ... 14	40	+/-25
ESD8V0L2B-03L	15k*	SP000055122	TSLP-3-1	-8 ... 14	40	+/-15
ESD8V0R1B-02EL	15k*	SP000368384	TSLP-2-18	-8 ... 14	40	+/-18
ESD8V0R1B-02EL	50k*	SP000640966	TSLP-2-18	-8 ... 14	40	+/-18
ESD8V0R1B-02ELS	15k*	SP000368387	TSSLP-2-2	-8 ... 14	40	+/-18
ESD5V0S1U-03W	3k*	SP000205608	SOD323	5	80	+/-30
ESD5V0S2U-06	3k*	SP000205610	SOT23	5	80	+/-30
ESD5V0S4US	3k*	SP000753522	SOT363	5	80	+/-30
ESD5V0S5US	3k*	SP000753524	SOT363	5	80	+/-30
ESD24VS2U	3k*	SP000316684	SOT23	24	80	+/-30
▼ ESD5V0L1B-02V	3k*	SP000872146	SC79	5	40	+/-25
▼ ESD5V0S1U-02V	3k*	SP000860826	SC79	5	50	+/-20

**TVS Diode for ESD/Transient Protection in Wireline Communication Applications (ADSL, VDSL)**

DSL70	3k*	SP000362209	SOT143	50	80	15
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\* order unit

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SMD = Surface Mounted Device



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## General Purpose Diodes & Transistors

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# General Purpose Diodes & Transistors

Type	Ordering Code	Package	Maximum Ratings		Characteristics ( $T_A = 25^\circ\text{C}$ )		
			$V_R$	$I_F$	$V_F$	at	$I_F$
			V	mA	V		mA

## Schottky Diodes

### Medium Power $I_{Fmax} \geq 500 \text{ mA}$

BAS3005A-02V	3k*	SP000749684	SC79	30	500	0.370	200
BAS3005B-02V	3k*	SP000749682	SC79	30	500	0.410	200
BAS3005S-02LRH	15k*	SP000472478	TSLP-2-17	30	500	0.370	200
BAS3010A-03W	3k*	SP000068629	SOD323	30	1000	0.350	500
BAS3010B-03W	3k*	SP000068630	SOD323	30	1000	0.420	500
BAS3010S-02LRH	15k*	SP000472480	TSLP-2-17	30	1000	0.500	700
BAS3020B	3k*	SP000749686	SOT363	30	2000	0.410	1000
BAS4002S-02LRH	15k*	SP000472476	TSLP-2-17	40	200	0.420	100
BAS52-02V	3k*	SP000749808	SC79	45	750	0.430	100
BAS52-02V	10k*	SP000749810 (SP000535510)	SC79	45	750	0.430	100
BAT165	3k*	SP000010277	SOD323	40	750	0.350	100
BAT60A	3k*	SP000010294	SOD323	10	3000	0.300	1000
BAT60B	3k*	SP000010296	SOD323	10	3000	0.400	1000

### High Speed Switching, Clipping and Clamping

BAS125-04W (Dual)	3k*	SP000749598	SOT323	25	100	0.385	1
BAS125-05W (Dual)	3k*	SP000749600	SOT323	25	100	0.385	1
BAS125-07W (Dual)	3k*	SP000749602	SOT343	25	100	0.385	1
BAS140W	3k*	SP000010199	SOD323	40	120	0.310	1
BAS170W	3k*	SP000010216	SOD323	70	70	0.375	1
BAS40	3k*	SP000010235	SOT23	40	120	0.310	1
BAS40	10k*	SP000010233	SOT23	40	120	0.310	1
BAS40-02L	15k*	SP000013549	TSLP-2-1	40	120	0.310	1
BAS40-04 (Dual)	3k*	SP000010241	SOT23	40	120	0.310	1
BAS40-04 (Dual)	10k*	SP000010243	SOT23	40	120	0.310	1
BAS40-05 (Dual)	3k*	SP000010240	SOT23	40	120	0.310	1
BAS40-05 (Dual)	10k*	SP000010242	SOT23	40	120	0.310	1
BAS40-05W (Dual)	3k*	SP000749762	SOT323	40	120	0.310	1
BAS40-06 (Dual)	3k*	SP000010239	SOT23	40	120	0.310	1
BAS40-06 (Dual)	10k*	SP000010244	SOT23	40	120	0.310	1
BAS40-06W (Dual)	3k*	SP000749764	SOT323	40	120	0.310	1
BAS40-07 (Dual)	3k*	SP000010245	SOT143	40	120	0.310	1
BAS40-07W (Dual)	3k*	SP000749806	SOT343	40	120	0.310	1

\* order unit

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SMD = Surface Mounted Device

# General Purpose Diodes & Transistors

Type	Ordering Code	Package	Maximum Ratings		Characteristics ( $T_A = 25^\circ\text{C}$ )		
			$V_R$	$I_F$	$V_F$	at	$I_F$
			V	mA	V		mA

## Schottky Diodes

### High Speed Switching, Clipping and Clamping (cont'd)

BAS70	3k*	SP000010247	SOT23	70	70	0.375	1
BAS70	10k*	SP000010248	SOT23	70	70	0.375	1
BAS70-02L	15k*	SP000013550	TSLP-2-1	70	70	0.375	1
BAS70-02W (Dual)	3k*	SP000749812	SCD80	70	70	0.375	1
BAS70-04 (Dual)	3k*	SP000010253	SOT23	70	70	0.375	1
BAS70-04 (Dual)	10k*	SP000010256	SOT23	70	70	0.375	1
BAS70-04S (Quad)	3k*	SP000749814	SOT363	70	70	0.375	1
BAS70-04W (Dual)	3k*	SP000749820	SOT323	70	70	0.375	1
BAS70-05 (Dual)	3k*	SP000010252	SOT23	70	70	0.375	1
BAS70-05 (Dual)	10k*	SP000078827	SOT23	70	70	0.375	1
BAS70-05W (Dual)	3k*	SP000749822	SOT323	70	70	0.375	1
BAS70-06 (Dual)	3k*	SP000010254	SOT23	70	70	0.375	1
BAS70-06 (Dual)	10k*	SP000010260	SOT23	70	70	0.375	1
BAS70-06W (Dual)	3k*	SP000749824	SOT323	70	70	0.375	1
BAS70-07 (Dual)	3k*	SP000010266	SOT143	70	70	0.375	1
BAS70-07 (Dual)	10k*	SP000010269	SOT143	70	70	0.375	1
BAS70-07W (Dual)	3k*	SP000749826	SOT343	70	70	0.375	1
BAT54	3k*	SP000068499	SOT23	30	200	$\leq 0.320$	1
BAT54-02LRH	15k*	SP000234099	TSLP-2-7	30	200	$\leq 0.320$	1
BAT54-02V	3k*	SP000749828	SC79	30	200	$\leq 0.320$	1
BAT54-03W	3k*	SP000426668	SOD323	30	200	$\leq 0.320$	1
BAT54-04 (Dual)	3k*	SP000068500	SOT23	30	200	$\leq 0.320$	1
BAT54-04W (Dual)	3k*	SP000749830	SOT323	30	200	$\leq 0.320$	1
BAT54-05 (Dual)	3k*	SP000068509	SOT23	30	200	$\leq 0.320$	1
BAT54-05W (Dual)	3k*	SP000749832	SOD323	30	200	$\leq 0.320$	1
BAT54-06 (Dual)	3k*	SP000068510	SOT23	30	200	$\leq 0.320$	1
BAT54-06W (Dual)	3k*	SP000749834 (SP000068510)	SOT323	30	200	$\leq 0.320$	1
BAT54W (Dual)	3k*	SP000786162	SOT323	30	200	$\leq 0.320$	1
BAT64	3k*	SP000010307	SOT23	40	250	0.320	1
BAT64-02W	3k*	SP000749836	SCD80	40	250	0.320	1
BAT64-04 (Dual)	3k*	SP000010309	SOT23	40	250	0.320	1
BAT64-04 (Dual)	10k*	SP000010314	SOT23	40	250	0.320	1
BAT64-04W (Dual)	3k*	SP000749838	SOT323	40	250	0.320	1
BAT64-05 (Dual)	3k*	SP000010310	SOT23	40	250	0.320	1
BAT64-05W (Dual)	3k*	SP000749840	SOT323	40	250	0.320	1
BAT64-06 (Dual)	3k*	SP000010311	SOT23	40	250	0.320	1
BAT64-06W (Dual)	3k*	SP000749842	SOT323	40	250	0.320	1
BAT240A (Dual)	3k*	SP000010292	SOT23	240	400	0.325	10
BAT240A (Dual)	10k*	SP000426394	SOT23	240	400	0.325	10

\* order unit

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SMD = Surface Mounted Device

# General Purpose Diodes & Transistors

Type	Ordering Code	Package	Maximum Ratings				Resistance Value	
			$V_{CEO}$	$V_{I(on)max}$	$I_C$	$P_{tot}$	$R_1$	$R_2$
			V	V	mA	mW	k	k

## Digital Transistors

### Single $I_C$ 100 mA

BCR108	3k*	SP000010736	SOT23	50	10	100	200	2.2	47
BCR108	10k*	SP000010737	SOT23	50	10	100	200	2.2	47
BCR108W	3k*	SP000750780	SOT323	50	10	100	250	2.2	47
BCR108W	10k*	SP000757882	SOT323	50	10	100	250	2.2	47
BCR112	3k*	SP000010747	SOT23	50	15	100	200	4.7	4.7
BCR112W	3k*	SP000750790	SOT323	50	15	100	250	4.7	4.7
BCR116	3k*	SP000010749	SOT23	50	15	100	200	4.7	47
BCR116	10k*	SP000010751	SOT23	50	15	100	200	4.7	47
BCR116W	3k*	SP000754072	SOT323	50	15	100	250	4.7	47
BCR119	3k*	SP000010752	SOT23	50	15	100	200	4.7	–
BCR119W	3k*	SP000755044	SOT323	50	15	100	250	4.7	–
BCR129	3k*	SP000012520	SOT23	50	20	100	200	10	–
BCR129W	3k*	SP000755048	SOT323	50	20	100	250	10	–
BCR133	3k*	SP000010757	SOT23	50	20	100	200	10	10
BCR133	10k*	SP000010759	SOT23	50	20	100	200	10	10
BCR133W	3k*	SP000756246	SOT323	50	20	100	250	10	10
BCR135	3k*	SP000010765	SOT23	50	20	100	200	10	47
BCR135	10k*	SP000010767	SOT23	50	20	100	200	10	47
BCR135W	3k*	SP000756252	SOT323	50	20	100	250	10	47
BCR141	3k*	SP000010769	SOT23	50	30	100	200	22	22
BCR141	10k*	SP000010771	SOT23	50	30	100	200	22	22
BCR141W	3k*	SP000756258	SOT323	50	30	100	250	22	22
BCR142	3k*	SP000010775	SOT23	50	30	100	200	22	47
BCR142	10x3k*	SP000010774	SOT23	50	30	100	200	22	47
BCR142W	3k*	SP000756260	SOT323	50	30	100	250	22	47
BCR146	3k*	SP000010777	SOT23	50	50	70	200	47	22
BCR148	3k*	SP000010780	SOT23	50	50	70	200	47	47
BCR148	10k*	SP000426390	SOT23	50	50	70	200	47	47
BCR148W	3k*	SP000756268	SOT323	50	50	70	250	47	47
BCR148W	10k*	SP000756242	SOT323	50	50	70	250	47	47
BCR158	3k*	SP000010784	SOT23	50	10	100	200	2.2	47
BCR158W	3k*	SP000750762	SOT323	50	10	100	250	2.2	47
BCR162	3k*	SP000010785	SOT23	50	15	100	200	4.7	4.7
BCR166	3k*	SP000010788	SOT23	50	15	100	200	4.7	47
BCR166	10k*	SP000010791	SOT23	50	15	100	200	4.7	47
BCR166	10x3k*	SP000056344	SOT23	50	15	100	200	4.7	47
BCR166W	3k*	SP000750764	SOT323	50	15	100	250	4.7	47
BCR169	3k*	SP000010793	SOT23	50	15	100	200	4.7	–
BCR169W	3k*	SP000756844	SOT323	50	15	100	250	4.7	–

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# General Purpose Diodes & Transistors

Type	Ordering Code	Package	Maximum Ratings				Resistance Value	
			$V_{CEO}$	$V_{I(on)max}$	$I_C$	$P_{tot}$	$R_1$	$R_2$
			V	V	mA	mW	k	k

## Digital Transistors

### Single $I_C$ 100 mA (cont'd)

BCR183	3k*	SP000010794	SOT23	50	20	100	200	10	10
BCR183	10k*	SP000010796	SOT23	50	20	100	200	10	10
■ BCR183	10x3k*	SP000057461	SOT23	50	20	100	200	10	10
BCR183W	3k*	SP000757002	SOT323	50	20	100	250	10	10
BCR185	3k*	SP000010806	SOT23	50	20	100	200	10	47
BCR185	10k*	SP000010807	SOT23	50	20	100	200	10	47
BCR185W	3k*	SP000757894	SOT323	50	20	100	250	10	47
BCR191	3k*	SP000010810	SOT23	50	30	100	200	22	22
BCR191W	3k*	SP000757896	SOT323	50	30	100	250	22	22
BCR192	3k*	SP000010812	SOT23	50	30	100	200	22	47
BCR192W	3k*	SP000757898	SOT323	50	30	100	250	22	47
BCR196	3k*	SP000014762	SOT23	50	50	70	250	47	22
BCR196W	3k*	SP000757902	SOT323	50	50	70	250	47	22
BCR198	3k*	SP000010817	SOT23	50	50	70	200	47	47
BCR198	10k*	SP000010820	SOT23	50	50	70	200	47	47
BCR198	10x3k*	SP000056350	SOT23	50	50	70	200	47	47
BCR198W	3k*	SP000757912	SOT323	50	50	70	250	47	47

### Dual $I_C$ 100 mA

BCR108S	3k*	SP000750774	SOT363	50	10	100	250	2.2	47
BCR108S	10k*	SP000750778	SOT363	50	10	100	250	2.2	47
BCR116S	3k*	SP000752050	SOT363	50	15	100	250	4.7	47
BCR119S	3k*	SP000754074	SOT363	50	15	100	250	4.7	–
BCR119S	10k*	SP000755042	SOT363	50	15	100	250	4.7	–
BCR129S	3k*	SP000755046	SOT363	50	20	100	250	10	–
BCR133S	3k*	SP000755050	SOT363	50	20	100	250	10	10
BCR133S	10k*	SP000755082	SOT363	50	20	100	250	10	10
BCR135S	3k*	SP000756248	SOT363	50	20	100	250	10	47
BCR141S	3k*	SP000756256	SOT363	50	30	100	250	22	22
BCR141S H6767	3k*	SP000756254	SOT363	50	30	100	250	22	22
BCR148S	3k*	SP000756262	SOT363	50	50	70	250	47	47
BCR148S	10k*	SP000756264	SOT363	50	50	70	250	47	47
BCR169S	3k*	SP000756842	SOT363	50	15	100	250	4.7	–
BCR183S	3k*	SP000756882 (SP000010802)	SOT363	50	20	100	250	10	10
BCR183S	3k*	SP000756886 (SP000010804)	SOT363	50	20	100	250	10	10
BCR183U	3k*	SP000012552	SC74	50	20	100	250	10	10
BCR185S	3k*	SP000757888	SOT363	50	20	100	250	10	47
BCR198S	3k*	SP000757904 (SP000010822)	SOT363	50	50	70	250	47	47
BCR08PN	3k*	SP000750766	SOT363	50	50	100	250	2.2	47
BCR08PN	10k*	SP000750770	SOT363	50	50	100	250	2.2	47
BCR10PN	3k*	SP000750782	SOT363	50	25	100	250	10	10
BCR10PN	10k*	SP000750788 (SP000010730)	SOT363	50	25	100	250	10	10

\* order unit

( ) in paranthesis old ordering code of types which change to Hg-free in 2010;  
please refer to PCN 2008-187-A1, PCN 2009-188-A, PCN 2009-122-A

SMD = Surface Mounted Device

# General Purpose Diodes & Transistors

Type	Ordering Code	Package	Maximum Ratings				Resistance Value	
			$V_{CEO}$	$V_{1(on)max}$	$I_C$	$P_{tot}$	$R_1$	$R_2$
			V	V	mA	mW	k	k

## Digital Transistors

### Dual $I_C$ 100 mA (cont'd)

BCR22PN	3k*	SP000757916	SOT363	50	30	100	250	22	22
BCR22PN	10k*	SP000757920	SOT363	50	30	100	250	22	22
BCR35PN	3k*	SP000757922	SOT363	50	20	100	250	10	47
BCR35PN	10k*	SP000757928	SOT363	50	20	100	250	10	47
BCR48PN	3k*	SP000757930	SOT363	50	50/10	100	250	47/2.2	47/47
BCR48PN	10k*	SP000757932	SOT363	50	50/10	100	250	47/2.2	47/47

### Single $I_C$ 50 mA

BCR503	3k*	SP000010839	SOT23	50	12	500	330	2.2	2.2
BCR505	3k*	SP000010841	SOT23	50	12	500	330	2.2	10
BCR512	3k*	SP000010844	SOT23	50	30	500	330	4.7	4.7
BCR521	3k*	SP000010845	SOT23	50	10	500	330	1.0	1.0
BCR523	3k*	SP000010851	SOT23	50	12	500	330	1.0	10
BCR523	10k*	SP000010852	SOT23	50	12	500	330	1.0	10
BCR533	3k*	SP000010853	SOT23	50	40	500	330	10	10
BCR553	3k*	SP000010854	SOT23	50	12	500	330	2.2	2.2
BCR555	3k*	SP000010855	SOT23	50	10	500	330	2.2	10
BCR555	10k*	SP000010857	SOT23	50	10	500	330	2.2	10
BCR562	3k*	SP000010859	SOT23	50	30	500	330	4.7	4.7
BCR573	3k*	SP000010861	SOT23	50	12	500	330	1	10
BCR573	10k*	SP000010860	SOT23	50	12	500	330	1	10
BCR583	3k*	SP000012278	SOT23	50	20	500	330	10	10

### Dual $I_C$ 50 mA

BCR523U	3k*	SP000013381	SC74	50	12	500	330	1.0	10
BCR523U	10k*	SP000662374	SC74	50	12	500	330	1.0	10

\* order unit

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SMD = Surface Mounted Device

# General Purpose Diodes & Transistors

Type	Ordering Code	Package	Maximum Ratings		Characteristics ( $T_A = 25^\circ\text{C}$ )			
			$V_{\text{CEO}}$ V	$I_{\text{CM}}$ mA	$h_{\text{FE}}$	at	$I_{\text{C}}$ mA	$V_{\text{CE}}$ V

## General Purpose Transistors

### Single $I_{\text{C}}$ 100 mA

BC847A	3k*	SP000010571	SOT23	45	200	110 ... 220	2	5
BC847B	3k*	SP000010559	SOT23	45	200	200 ... 450	2	5
BC847B	10k*	SP000010576	SOT23	45	200	200 ... 450	2	5
BC847BL3	15k*	SP000013553	TSLP-3-1	45	200	200 ... 450	2	5
BC847BW	3k*	SP000746930	SOT323	45	200	200 ... 450	2	5
BC847BW	10k*	SP000746932	SOT323	45	200	200 ... 450	2	5
BC847C	3k*	SP000010565	SOT23	45	200	420 ... 800	2	5
BC847C	10k*	SP000010590	SOT23	45	200	420 ... 800	2	5
BC847CW	3k*	SP000746934	SOT323	45	200	420 ... 800	2	5
BC847CW	10k*	SP000747284	SOT323	45	200	420 ... 800	2	5
BC848A	3k*	SP000010568	SOT23	30	200	110 ... 220	2	5
BC848B	3k*	SP000010561	SOT23	30	200	200 ... 450	2	5
BC848B	10k*	SP000010581	SOT23	30	200	200 ... 450	2	5
BC848BL3	15k*	SP000013554	TSLP-3-1	30	200	200 ... 450	2	5
BC848BW	3k*	SP000747410	SOT323	30	200	200 ... 450	2	5
BC848C	3k*	SP000010552	SOT23	30	200	420 ... 800	2	5
BC848C	10k*	SP000010582	SOT23	30	200	420 ... 800	2	5
BC848CW	3k*	SP000747412	SOT323	30	200	420 ... 800	2	5
BC849B	3k*	SP000010567	SOT23	30	200	200 ... 450	2	5
BC849C	3k*	SP000010564	SOT23	30	200	420 ... 800	2	5
BC849CW	3k*	SP000747414	SOT323	30	200	420 ... 800	2	5
BC850B	3k*	SP000010572	SOT23	45	200	200 ... 450	2	5
BC850BW	3k*	SP000747416	SOT323	45	200	200 ... 450	2	5
BC850C	3k*	SP000010563	SOT23	45	200	420 ... 800	2	5
BC850CW	3k*	SP000747418	SOT323	45	200	420 ... 800	2	5
BC857A	3k*	SP000010639	SOT23	45	200	125 ... 250	2	5
BC857B	3k*	SP000010633	SOT23	45	200	220 ... 475	2	5
BC857B	10k*	SP000010648	SOT23	45	200	220 ... 475	2	5
BC857BL3	3k*	SP000013556	TSLP-3-1	45	200	220 ... 475	2	5
BC857BW	3k*	SP000747448	SOT323	45	200	220 ... 475	2	5
BC857C	3k*	SP000010640	SOT23	45	200	420 ... 800	2	5
BC857C	10k*	SP000010660	SOT23	45	200	420 ... 800	2	5
BC857CW	3k	SP000747452	SOT323	45	200	420 ... 800	2	5
BC857CW	10k*	SP000747454	SOT323	45	200	420 ... 800	2	5
BC858A	3k*	SP000010636	SOT23	30	200	125 ... 250	2	5
BC858B	3k	SP000010634	SOT23	30	200	220 ... 475	2	5
BC858B	10k*	SP000010652	SOT23	30	200	220 ... 475	2	5
BC858BL3	3k	SP000013555	TSLP-3-1	30	200	220 ... 475	2	5
BC858BW	3k	SP000747582	SOT323	30	200	220 ... 475	2	5
BC858C	3k	SP000010624	SOT23	30	200	420 ... 800	2	5
BC858C	10k*	SP000010654	SOT23	30	200	420 ... 800	2	5
BC858CW	3k	SP000747584	SOT323	30	200	420 ... 800	2	5
BC859C	3k	SP000010637	SOT23	30	200	420 ... 800	2	5

\* order unit

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SMD = Surface Mounted Device

# General Purpose Diodes & Transistors

Type	Ordering Code	Package	Maximum Ratings		Characteristics ( $T_A = 25^\circ\text{C}$ )			
			$V_{\text{CEO}}$	$I_{\text{CM}}$	$h_{\text{FE}}$	at	$I_{\text{C}}$	$V_{\text{CE}}$
			V	mA			mA	V

## General Purpose Transistors

### Single $I_{\text{C}}$ 100 mA (cont'd)

BCW60B	3k*	SP000010551	SOT23	32	200	180 ... 310	2	5
BCW60C	3k*	SP000010548	SOT23	32	200	250 ... 460	2	5
BCW60D	3k*	SP000010549	SOT23	32	200	380 ... 630	2	5
BCW61A	3k*	SP000010621	SOT23	32	200	120 ... 220	2	5
BCW61B	3k*	SP000010629	SOT23	32	200	180 ... 310	2	5
BCW61C	3k*	SP000010622	SOT23	32	200	250 ... 460	2	5
BCW61D	3k*	SP000010627	SOT23	32	200	380 ... 630	2	5
BCX70G	3k*	SP000010555	SOT23	45	200	120 ... 220	2	5
BCX70H	3k*	SP000010550	SOT23	45	200	180 ... 310	2	5
BCX70H	10k*	SP000010578	SOT23	45	200	180 ... 310	2	5
BCX70J	3k*	SP000010556	SOT23	45	200	250 ... 460	2	5
BCX70J	10k*	SP000010573	SOT23	45	200	250 ... 460	2	5
BCX70K	3k*	SP000010558	SOT23	45	200	380 ... 630	2	5
BCX71G	3k*	SP000010623	SOT23	45	200	120 ... 220	2	5
BCX71H	3k*	SP000010631	SOT23	45	200	180 ... 310	2	5
BCX71J	3k*	SP000010625	SOT23	45	200	250 ... 460	2	5
BCX71J	10k*	SP000010647	SOT23	45	200	250 ... 460	2	5
BCX71K	3k*	SP000010632	SOT23	45	200	380 ... 630	2	5

### Dual $I_{\text{C}}$ 100 mA

BC846PN	3k*	SP000746856	SOT363	65	200	200 ... 450	2	5
BC846S	3k*	SP000746922	SOT363	65	200	200 ... 450	2	5
BC846S	10k*	SP000746926	SOT363	65	200	200 ... 450	2	5
BC846U	3k*	SP000012619	SC74	65	100	200 ... 450	2	5
BC846UPN	3k*	SP000012621	SC74	65	200	200 ... 450	2	5
BC847PN	3k*	SP000747288	SOT363	45	200	110 ... 630	2	5
BC847PN	10k*	SP000747292	SOT363	45	200	110 ... 630	2	5
BC847S	3k*	SP000747298	SOT363	45	200	110 ... 630	2	5
BC847S	10k*	SP000747404	SOT363	45	200	110 ... 630	2	5
BC856S	3k*	SP000747446	SOT363	65	200	200 ... 475	2	5
BC856U	3k*	SP000012620	SC74	65	100	200 ... 650	2	5
BC857S	3k*	SP000747456	SOT363	45	200	200 ... 630	2	5
▼ BC857S	10k*	SP000747576	SOT363	45	200	200 ... 630	2	5

\* order unit

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SMD = Surface Mounted Device

# General Purpose Diodes & Transistors

Type	Ordering Code	Package	Maximum Ratings		Characteristics ( $T_A = 25^\circ\text{C}$ )			
			$V_{\text{CEO}}$	$I_{\text{CM}}$	$h_{\text{FE}}$	at	$I_{\text{C}}$	$V_{\text{CE}}$
			V	mA			mA	V

## General Purpose Transistors

### Single $I_{\text{C}}$ 500 mA

BC817K-16	3k*	SP000271788	SOT23	45	1000	100 ... 250	100	1
BC817K-16	10k*	SP000271829	SOT23	45	1000	100 ... 250	100	1
▼ BC817K-16W	3k*	SP000786164	SOT323	45	1000	100 ... 250	100	1
BC817K-25	3k*	SP000271875	SOT23	45	1000	160 ... 400	100	1
BC817K-25	10k*	SP000271879	SOT23	45	1000	160 ... 400	100	1
BC817K-25W	3k*	SP000746848	SOT323	45	1000	160 ... 400	100	1
▼ BC817K-25W	10k*	SP000786166	SOT323	45	1000	160 ... 400	100	1
BC817K-40	3k*	SP000271895	SOT23	45	1000	250 ... 630	100	1
BC817K-40	10k*	SP000271898	SOT23	45	1000	250 ... 630	100	1
BC817K-40W	3k*	SP000746850	SOT323	45	1000	250 ... 630	100	1
BC817SU	3k*	SP000296413	SC74	45	1000	160 ... 400	100	1
BC818K-16W	3k*	SP000746852	SOT323	25	1000	100 ... 250	100	1
■ BC818K-25	3k*	SP000271900	SOT23	25	1000	160 ... 400	100	1
BC818K-40	3k*	SP000271908	SOT23	25	1000	250 ... 630	100	1
BCW66KF	3k*	SP000271902	SOT23	45	1000	100 ... 250	100	1
BCW66KG	3k*	SP000271904	SOT23	45	1000	160 ... 400	100	1
BCW66KH	3k*	SP000271906	SOT23	45	1000	250 ... 630	100	1
BCW66KH	10x3k*	SP000271905	SOT23	45	1000	250 ... 630	100	1
■ BCW67A	3k*	SP000015036	SOT23	32	1000	100 ... 250	100	1
BCW67B	3k*	SP000015035	SOT23	32	1000	160 ... 400	100	1
BCW67C	3k*	SP000015037	SOT23	32	1000	250 ... 630	100	1
BCW68F	3k*	SP000015041	SOT23	45	1000	100 ... 250	100	1
BCW68G	3k*	SP000015039	SOT23	45	1000	160 ... 400	100	1
BCW68H	3k*	SP000015040	SOT23	45	1000	250 ... 630	100	1
SMBTA06	3k*	SP000011686	SOT23	80	500	≥ 100	100	1
SMBTA06	10k*	SP000011688	SOT23	80	500	≥ 100	100	1
SMBTA56	3k*	SP000011692	SOT23	80	500	≥ 100	100	1
SMBTA56	10k*	SP000011695	SOT23	80	500	≥ 100	100	1

### Dual $I_{\text{C}}$ 500 mA

BC807U	3k*	SP000012395	SC74	45	500	160 ... 400	100	1
BC817U	3k*	SP000012394	SC74	45	1000	160 ... 400	100	1
BC817UPN	3k*	SP000012398	SC74	45	1000	160 ... 400	100	1
SMBTA06UPN	3k*	SP000012393	SC74	80	500	≥ 100	100	1

### Single $I_{\text{C}}$ 500 mA

BDP947	1k*	SP000748376 (SP000010931)	SOT223	45	5000	40 ... 475	500	1
BDP948	1k*	SP000748378 (SP000010938)	SOT223	45	5000	40 ... 475	500	1
BDP948	4k*	SP000748380 (SP000010943)	SOT223	45	5000	40 ... 475	500	1
BDP949	1k*	SP000748382 (SP000010932)	SOT223	60	5000	40 ... 475	500	1
BDP950	1k*	SP000748522 (SP000010939)	SOT223	60	5000	40 ... 475	500	1
BDP953	1k*	SP000748526 (SP000010934)	SOT223	100	5000	40 ... 475	500	1
BDP954	1k*	SP000748528 (SP000010941)	SOT223	100	5000	40 ... 475	500	1

\* order unit

( ) in paranthesis old ordering code of types which change to Hg-free in 2010;  
please refer to PCN 2008-187-A1, PCN 2009-188-A, PCN 2009-122-A

SMD = Surface Mounted Device



# General Purpose Diodes & Transistors

Type	Ordering Code	Package	Maximum Ratings		Characteristics ( $T_A = 25^\circ\text{C}$ )			
			$V_{\text{CEO}}$	$I_{\text{CM}}$	$h_{\text{FE}}$	at	$I_{\text{C}}$	$V_{\text{CE}}$
			V	mA			mA	V

## General Purpose Transistors

### Single $I_{\text{C}}$ 500 mA (cont'd)

BCP51	1k*	SP000748088 (SP000010692)	SOT223	45	1500	40 ... 250	150	2
BCP51-16	1k*	SP000748090 (SP000010694)	SOT223	45	1500	100 ... 250	150	2
BCP51-16	4k*	SP000748092 (SP000010703)	SOT223	45	1500	100 ... 250	150	2
BCP52-16	1k*	SP000748096 (SP000010696)	SOT223	60	1500	100 ... 250	150	2
BCP53-10	1k*	SP000748122 (SP000010697)	SOT223	100	1500	63 ... 160	150	2
BCP53-16	1k*	SP000748124 (SP000010698)	SOT223	100	1500	100 ... 250	150	2
BCP53-16	4k*	SP000748126 (SP000010702)	SOT223	100	1500	100 ... 250	150	2
BCP54	1k*	SP000748128 (SP000010707)	SOT223	45	1500	40 ... 250	150	2
BCP54-16	1k*	SP000748130 (SP000010709)	SOT223	45	1500	100 ... 250	150	2
BCP54-16	4k*	SP000748132 (SP000010717)	SOT223	45	1500	100 ... 250	150	2
BCP55	1k*	SP000748362 (SP000010713)	SOT223	60	1500	40 ... 250	150	2
BCP55-16	1k*	SP000748364 (SP000010711)	SOT223	60	1500	100 ... 250	150	2
BCP56-10	1k*	SP000748366 (SP000010712)	SOT223	80	1500	63 ... 160	150	2
BCP56-10	4k*	SP000748368	SOT223	80	1500	63 ... 160	150	2
BCP56-16	1k*	SP000748370 (SP000010706)	SOT223	80	1500	100 ... 250	150	2
BCP68-25	1k*	SP000748372	SOT223	20	2000	160 ... 375	150	2
BCP69-25	1k*	SP000748374 (SP000015154)	SOT223	20	2000	160 ... 375	150	2
BCX51	1k*	SP000014826	SOT89	45	1500	40 ... 250	150	2
BCX51-16	1k*	SP000014827	SOT89	45	1500	100 ... 250	150	2
BCX52	1k*	SP000014828	SOT89	60	1500	40 ... 250	150	2
BCX52-16	1k*	SP000014830	SOT89	60	1500	100 ... 250	150	2
BCX52-16	4k*	SP000463248	SOT89	60	1500	100 ... 250	150	2
BCX53	1k*	SP000010906	SOT89	80	1500	40 ... 250	150	2
BCX53-10	1k*	SP000010908	SOT89	80	1500	63 ... 160	150	2
BCX53-16	1k*	SP000010907	SOT89	80	1500	100 ... 250	150	2
BCX53-16	4k*	SP000010909	SOT89	80	1500	100 ... 250	150	2
BCX54-16	1k*	SP000010918	SOT89	45	1500	100 ... 250	150	2
BCX55	1k*	SP000010916	SOT89	60	1500	40 ... 250	150	2
BCX55-16	1k*	SP000010920	SOT89	60	1500	100 ... 250	150	2
BCX55-16	4k*	SP000010922	SOT89	60	1500	100 ... 250	150	2
BCX56	1k*	SP000010914	SOT89	80	1500	40 ... 250	150	2
BCX56-10	1k*	SP000010915	SOT89	80	1500	63 ... 160	150	2
BCX56-16	1k*	SP000010913	SOT89	80	1500	100 ... 250	150	2
BCX56-16	4k*	SP000017942	SOT89	80	1500	100 ... 250	150	2
BCX68-10	1k*	SP000010924	SOT89	20	2000	85 ... 160	500	1
BCX68-16	1k*	SP000010925	SOT89	20	2000	100 ... 250	150	2
BCX68-25	1k*	SP000010926	SOT89	20	2000	160 ... 375	500	1
BCX69-10	1k*	SP000010928	SOT89	20	2000	85 ... 160	500	1
BCX69-16	1k*	SP000010929	SOT89	20	2000	100 ... 250	500	1
BCX69-25	1k*	SP000010930	SOT89	20	2000	160 ... 375	500	1

\* order unit

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SMD = Surface Mounted Device

# General Purpose Diodes & Transistors

Type	Ordering Code	Package	Maximum Ratings		Characteristics ( $T_A = 25^\circ\text{C}$ )			
			$V_{\text{CEO}}$ V	$I_{\text{CM}}$ mA	$h_{\text{FE}}$	at	$I_{\text{C}}$ mA	$V_{\text{CE}}$ V

## General Purpose Transistors

### Dual Transistors for Current Mirror Applications

BCV61A	3k*	SP000010885	SOT143	30	200	110 ... 220	100	5
BCV61B	3k*	SP000010886	SOT143	30	200	200 ... 450	100	5
BCV61C	3k*	SP000010887	SOT143	30	200	420 ... 800	100	5
BCV62A	3k*	SP000010889	SOT143	30	200	125 ... 220	100	5
BCV62B	3k*	SP000010890	SOT143	30	200	220 ... 475	100	5
BCV62B	10k*	SP000010893	SOT143	30	200	220 ... 475	100	5
BCV62C	3k*	SP000010891	SOT143	30	200	420 ... 800	100	5

### Precision Matched Dual Transistors ( $I_{\text{C}}$ 10 %)

BCM846S	3k*	SP000747590	SOT363	65	200	200 ... 650	2	5
BCM856S	3k*	SP000747592	SOT363	65	200	200 ... 450	2	5
▼ BCM856S	10k*	SP000747594	SOT363	65	200	200 ... 450	2	5

### Low Noise Transistors (Noise Figure $\leq$ a dB @ 1 kHz)

BCW60FF	3k*	SP000010554	SOT23	32	200	250 ... 460	2	5
BC860B	3k*	SP000010642	SOT23	45	200	220 ... 475	2	5
BC860BW	3k*	SP000747586	SOT323	45	200	220 ... 475	2	5
BC860CW	3k*	SP000747588	SOT323	45	200	420 ... 800	2	5

### Fast Switching Transistors (Storage Time $\leq$ 1 $\mu$ s)

SMBT2222A	3k*	SP000011176	SOT23	40	-	100 ... 300	150	10
SMBT2907A	3k*	SP000011181	SOT23	60	-	100 ... 300	150	10
SMBT3904	3k*	SP000011673	SOT23	40	200	100 ... 300	10	1
SMBT3904	10k*	SP000011675	SOT23	40	200	100 ... 300	10	1
SMBT3906	3k*	SP000011680	SOT23	40	200	100 ... 300	10	1

### Fast Switching Dual Transistors (Storage Time $\leq$ 1 $\mu$ s)

SMBT3904S	3k*	SP000749590	SOT363	40	200	100 ... 300	10	1
■ SMBT3904U	3k*	SP000012615	SC74	40	200	100 ... 300	10	1
SMBT3904PN	3k*	SP000749584	SOT363	40	200	100 ... 300	10	1
SMBT3904UPN	3k*	SP000012617	SC74	40	200	100 ... 300	10	1
SMBT3906S	3k*	SP000749596	SOT363	40	200	100 ... 300	10	1
SMBT3906U	3k*	SP000012616	SC74	40	200	100 ... 300	10	1

\* order unit

( ) in paranthesis old ordering code of types which change to Hg-free in 2010;  
please refer to PCN 2008-187-A1, PCN 2009-188-A, PCN 2009-122-A

SMD = Surface Mounted Device

# General Purpose Diodes & Transistors

Type	Ordering Code	Package	Maximum Ratings		Characteristics ( $T_A = 25^\circ\text{C}$ )			
			$V_{\text{CEO}}$	$I_{\text{CM}}$	$h_{\text{FE}}$	at	$I_{\text{C}}$	$V_{\text{CE}}$
			V	mA			mA	V

## General Purpose Transistors

### High Voltage Transistors ( $V_{\text{CEP}} \geq 100 \text{ V}$ )

BCX41	3k*	SP000010894	SOT23	125	1000	$\geq 63$	100	1
BCX41	10k*	SP000010896	SOT23	125	1000	$\geq 63$	100	1
BCX42	3k*	SP000010900	SOT23	125	1000	$\geq 63$	100	1
BCX42	10k*	SP000010902	SOT23	125	1000	$\geq 63$	100	1
BFN18	1k*	SP000010997	SOT89	300	500	$\geq 30$	30	10
BFN19	1k*	SP000010998	SOT89	300	500	$\geq 30$	30	10
BFN24	3k*	SP000014784	SOT23	250	500	$\geq 40$	30	10
BFN26	3k*	SP000014785	SOT23	300	500	$\geq 30$	30	10
BFN26	10k*	SP000014786	SOT23	300	500	$\geq 30$	30	10
BFN27	3k*	SP000014782	SOT23	300	500	$\geq 30$	30	10
BFN38	1k*	SP000748530 (SP000011006)	SOT223	300	500	$\geq 30$	30	10
BFN39	1k*	SP000748532 (SP000014781)	SOT223	300	500	$\geq 30$	30	10
SMBTA42	3k*	SP000011000	SOT23	300	500	$\geq 40$	30	10
SMBTA42	10k*	SP000011001	SOT23	300	500	$\geq 40$	30	10
PZTA42	1k*	SP000749568 (SP000014780)	SOT223	300	500	$\geq 40$	30	10
SMBTA92	3k*	SP000011004	SOT23	300	500	$\geq 25$	30	10
SMBTA92	10k*	SP000011005	SOT23	300	500	$\geq 25$	30	10
PZTA92	4k*	SP000749576 (SP000011009)	SOT223	300	500	$\geq 25$	30	10

### Darlington Transistors ( $h_{\text{FE}} \geq 2000$ )

BCP49	1k*	SP000747598 (SP000010685)	SOT223	60	800	$\geq 10000$	100	5
▼ BCP49	4k*	SP000748082	SOT223	60	800	$\geq 10000$	100	5
BCV26	3k*	SP000010874	SOT23	30	500	$\geq 20000$	100	5
BCV27	3k*	SP000010865	SOT23	30	800	$\geq 20000$	100	5
BCV28	1k*	SP000010879	SOT89	30	800	$\geq 20000$	100	5
BCP29	1k*	SP000010883	SOT89	30	800	$\geq 20000$	100	5
BCV46	3k*	SP000010873	SOT23	60	500	$\geq 10000$	100	5
BCV47	3k*	SP000010866	SOT23	60	800	$\geq 10000$	100	5
BCV47	10k*	SP000010864	SOT23	60	800	$\geq 10000$	100	5
BCV48	1k*	SP000010880	SOT89	60	800	$\geq 10000$	100	5
BCV49	1k*	SP000010882	SOT89	60	800	$\geq 10000$	100	5
BSP50	1k*	SP000748534 (SP000011126)	SOT223	45	2000	$\geq 2000$	500	10
BSP51	1k*	SP000748536 (SP000011127)	SOT223	60	2000	$\geq 2000$	500	10
BSP52	1k*	SP000748886 (SP000011128)	SOT223	80	2000	$\geq 2000$	500	10
BSP60	1k*	SP000749082 (SP000011131)	SOT223	45	2000	$\geq 2000$	500	10
BSP61	1k*	SP000749562 (SP000011132)	SOT223	60	2000	$\geq 2000$	500	10
BSP62	1k*	SP000749564 (SP000011133)	SOT223	80	2000	$\geq 2000$	500	10
PZTA14	1k*	SP000749566 (SP000010688)	SOT223	30	500	$\geq 20000$	100	5
SMBTA14	3k*	SP000010872	SOT23	30	500	$\geq 20000$	100	5

\* order unit

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SMD = Surface Mounted Device

# General Purpose Diodes & Transistors

Type	Ordering Code	Package	Maximum Ratings		Characteristics ( $T_A = 25^\circ\text{C}$ )		
			$V_R$	$I_F$	$V_F$	at	$I_F$
			V	mA	V		mA

## General Purpose Diodes

$I_{F(\text{max})} \leq 250 \text{ mA}$

BAL74	3k*	SP000014992	SOT23	50	250	$\leq 1.0$	100
BAL99	3k*	SP000010159	SOT23	70	250	$\leq 1.25$	150
BAL99	10k*	SP000010161	SOT23	70	250	$\leq 1.25$	150
BAR74	3k*	SP000010202	SOT23	50	250	$\leq 1.0$	100
BAS16	3k*	SP000010203	SOT23	75	250	$\leq 1.25$	150
BAS16	10k*	SP000010201	SOT23	75	250	$\leq 1.25$	150
BAS16-02L	15k*	SP000013548	TSLP-2-1	75	250	$\leq 1.25$	150
BAS16-02V	3k*	SP000752008	SC79	75	250	$\leq 1.25$	150
BAS16 W	3k*	SP000753166	SOT323	75	250	$\leq 1.25$	150
BAS16 W	10k*	SP000753168	SOT323	75	250	$\leq 1.25$	150
BAS16-02W	3k*	SP000752010	SCD80	75	200	$\leq 1.25$	150
BAS16-03W	3k*	SP000010213	SOD323	75	250	$\leq 1.25$	150
BAS16-07L4 (Dual)	3k*	SP000013972	TSLP-4-4	75	250	$\leq 1.25$	150
BAS21	3k*	SP000010217	SOT23	200	250	$\leq 1.25$	200
BAS21	10k*	SP000010219	SOT23	200	250	$\leq 1.25$	200
BAS21-03W	3k*	SP000012522	SOD323	200	250	$\leq 1.25$	200
BAS21-03W	10k*	SP000082470	SOD323	200	250	$\leq 1.25$	200
BAS21U (Triple)	3k*	SP000012610	SC74	200	250	$\leq 1.25$	200
BAS21U (Triple)	10k*	SP000471142	SC74	200	250	$\leq 1.25$	200
BAS28 (Dual)	3k*	SP000010225	SOT143	80	200	$\leq 1.25$	150
BAS28 (Dual)	10k*	SP000010228	SOT143	80	200	$\leq 1.25$	150
BAS28W (Dual)	3k*	SP000753170	SOT343	80	200	$\leq 1.25$	150
BAV70 (Dual)	3k*	SP000014923	SOT23	80	200	$\leq 1.25$	150
BAV70 (Dual)	10k*	SP000014924	SOT23	80	200	$\leq 1.25$	150
BAV70S (Quad)	3k*	SP000753172	SOT363	80	200	$\leq 1.25$	150
BAV70U (Quad)	3k*	SP000012931	SC74	80	200	$\leq 1.25$	150
BAV70W (Dual)	3k*	SP000754042	SOT323	80	200	$\leq 1.25$	150
BAV99S (Quad)	3k*	SP000754046	SOT363	80	200	$\leq 1.25$	150
BAV99S (Quad)	10k*	SP000754048	SOT363	80	200	$\leq 1.25$	150
BAV99U (Quad)	3k*	SP000012613	SC74	80	200	$\leq 1.25$	150
BAW101 (Dual)	3k*	SP000010363	SOT143	300	250	$\leq 1.3$	100
BAW101 (Dual)	10k*	SP000010364	SOT143	300	250	$\leq 1.3$	100
BAW56S (Quad)	3k*	SP000754060	SOT363	80	200	$\leq 1.25$	150
BAW56U (Quad)	3k*	SP000014993	SC74	80	200	$\leq 1.25$	150
BAW56U (Quad)	10k*	SP000492394	SC74	80	200	$\leq 1.25$	150
SMBD914	3k*	SP000010209	SOT23	70	250	$\leq 1.0$	100
SMBD7000 (Dual)	3k*	SP000014938	SOT23	100	200	$\leq 1.1$	100

\* order unit

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SMD = Surface Mounted Device

## General Purpose Diodes & Transistors

Type	Ordering Code	Package	Maximum Ratings		Characteristics ( $T_A = 25^\circ\text{C}$ )	
			$V_R$	$I_F$	$V_F$	at $I_F$
			V	mA	V	mA

### General Purpose Diodes

#### $I_{F(\text{max})} \leq 1000 \text{ mA}$

BAW78 D	1k*	SP000010370	SOT89	400	1000	$\leq 2.00$	2000
BAW79 D (Dual)	1k*	SP000014594	SOT89	400	1000	$\leq 2.00$	2000

### Low Leakage

BAS116	3k*	SP000010194	SOT23	75	250	$\leq 1.25$	150
BAS116	10k*	SP000010196	SOT23	75	250	$\leq 1.25$	150
BAV170 (Dual)	3k*	SP000010325	SOT23	80	200	$\leq 1.25$	150
BAV170 (Dual)	10k*	SP000010332	SOT23	80	200	$\leq 1.25$	150
BAV199 (Dual)	3k*	SP000010326	SOT23	80	200	$\leq 1.25$	150
BAV199 (Dual)	10k*	SP000010330	SOT23	80	200	$\leq 1.25$	150
BAW156 (Dual)	3k*	SP000010327	SOT23	80	20	$\leq 1.25$	150

### Bridge Rectifier

BGX50 A	3k*	SP000011092	SOT143	50	140	$\leq 1.30$	100
BAS3007A-RPP	3k*	SP000356003	SOT143	30	350	$\leq 0.40$	100
▼ BAS4002A-RPP	3k*	SP000443736	SOT143	40	200	$\leq 0.62$	100

\* order unit

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SMD = Surface Mounted Device



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## LED Driver & Lighting ICs

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Type	Ordering Code	Package	Maximum Ratings		
			$V_s$ V	$I_{out}$ (typ) mA	$P_{tot}$ mW

### Switch-Mode and Linear LED Drivers for General Lighting Applications

#### LED Drivers for 0.5 W LEDs

BCR320U	3k*	SP000665920	SC74	25	300	1000
BCR321U	3k*	SP000665918	SC74	4.5	300	1000
BCR420U	3k*	SP000665924	SC74	40	200	1000
BCR421U	3k*	SP000665922	SC74	40	200	1000

#### LED Controller for 1 W up to 3 W LEDs

BCR450	3k*	SP000394437	SC74	27	70	500
▼ ILD4001	3k*	SP000777082	SC74	40	10	-

#### LED Drivers for Low Power LEDs

▼ BCR205W	3k*	SP000866560	SOT143	18	50	500
BCR401R	3k*	SP000013678	SOT143	18	10	330
BCR401U	3k*	SP000311546	SC74	40	10	500
BCR401W	3k*	SP000745174	SOT343	18	10	500
BCR402R	3k*	SP000013057	SOT143	18	20	330
BCR402U	3k*	SP000013482	SC74	40	20	500
BCR402W	3k*	SP000745922	SOT343	18	20	500
BCR405U	3k*	SP000013481	SC74	40	50	500

#### LED Drivers for High Power LEDs

▼ ILD4035	3k*	SP000694112	SC74	40	350	-
▼ ILD4120	2.5k*	SP000785284	PG-DSO-8-27	40	1200	-
▼ ILD4180	2.5k*	SP000750736	PG-DSO-8-27	45	1800	-
TLE4309G	1k*	SP000299342	PG-TO263-7-1	24	500	-

SMD = Surface Mounted Device

# LED Driver & Lighting ICs

Type	Ordering Code	Package	Description
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## Switch-Mode and Linear LED Drivers for Automotive Lighting Applications

### Basic LED Driver ICs

TLE4240-2M	SP000255105	SCT595	Lowdrop LED driver, 58 mA current output, tape & reel
TLE4240-3M	SP000255106	SCT595	Lowdrop LED driver, 58 mA current output, open load detection, tape & reel
TLE4241GM	SP000410436	PG-DSO-8-9	Lowdrop LED driver, with adjustable current output (8/65 V), Inhibit, tape & reel
TLE4242G	SP000299340	PG-TO263-7-1	Lowdrop LED driver, with adjustable current output up to 500 mA, Inhibit, tape & reel
▼ TLD1211SJ	SP000735204	PG-DSO-8-16	Basic LED driver, high side current source, 1 channel, typical 85 mA load current, up to 2.5 A load current using external transistors, tape & reel

### Power LED Driver ICs

TLD5085EJ	SP000550912	PG-DSO-8-27	Power LED driver, 1.8 DC/DC step-down converter, constant current or constant voltage regulation, Enable function, tape & reel
TLD5095EL	SP000464524	PG-SSOP-14 EP	Power LED driver, DC/DC Boost, Buck Boost, SEPIC controller, constant current or constant voltage regulation, Enable function, implemented status pin to indicate fault conditions, tape & reel
▼ TLD5098EL	SP000671268	PG-SSOP-14 EP	Power LED driver, DC/DC Boost, Buck Boost, SEPIC controller, constant current or constant voltage regulation, Enable function, analog dimming feature to adjust average LED current, tape & reel
▼ ICL8001G	SP000773086	PG-DSO-8-1	LED driver for ultra-high-power LEDs, with adjustable up to 1.8 A constant current, integrated power stage, tape & reel

### Lighting ICs

ICB1FL02G	SP000204703	SO-18/1	PFC, ballast control and half-bridge driver in one IC, tape & reel
ICB1FL03G	SP000626792	SO-18/2	PFC, ballast control and half-bridge driver in one IC, tape & reel
ICB2FL01G	SP000363741	SO-19	2nd generation FL-controller for fluorescent lamp ballasts, tape & reel
ICB2FL02G	SP000555574	SO-19	2nd generation FL-controller for fluorescent lamp ballasts, optimized to operating frequency and detection threshold, tape & reel

SMD = Surface Mounted Device

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## Sensors

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Pressure Sensors .....	179
Magnetic Sensors .....	180
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Type	Ordering Code	Package	Data			
			Pressure Range	$P_{max}$	$V_s$	Operating Temperature Range
			kPa	kPa	V	°C

### Pressure Sensors

#### Absolute Barometric Pressure Sensor ICs (BAP)

■ KP123	SP000299134	PG-DSOF-8-12	40 ... 115	600	0.20 ... 4.70	-40 ... +125
■ KP124	SP000239581	PG-DSOF-8-12	40 ... 115	600	0.20 ... 4.70	-40 ... +125
■ KP125	SP000271097	PG-DSOF-8-12	40 ... 115	600	0.50 ... 4.50	-40 ... +125
■ KP126	SP000239578	PG-DSOF-8-12	40 ... 115	600	0.50 ... 4.50	-40 ... +125
■ KP126N6165	SP000264887	PG-DSOF-8-12	60 ... 165	600	0.20 ... 4.80	-40 ... +125
KP234	SP000700772	PG-DSOF-8-16	40 ... 115	600	0.20 ... 4.70	-40 ... +125
KP235	SP000700776	PG-DSOF-8-16	40 ... 115	600	0.50 ... 4.50	-40 ... +125
KP236	SP000700780	PG-DSOF-8-16	40 ... 115	600	0.50 ... 4.50	-40 ... +125
KP236N6165	SP000700784	PG-DSOF-8-16	60 ... 165	600	0.20 ... 4.80	-40 ... +125
KP214N2611	SP000763326	PG-DSOF-8-16	20 ... 115	600	0.40 ... 4.65	-40 ... +140
KP215F1701	SP000698278	PG-DSOF-8-16	15 ... 115	600	0.40 ... 4.65	-40 ... +140
KP216K1409	SP000698288	PG-DSOF-8-16	50 ... 150	600	0.50 ... 4.50	-40 ... +140
▼ KP219N3621	SP000824058	PG-DSOF-8-16	15 ... 102	600	0.40 ... 4.65	-40 ... +125
KP216H1416	SP000698282	PG-DSOF-8-16	50 ... 150	600	0.50 ... 4.50	-40 ... +140
KP226K2809	SP000724842	PG-DSOF-8-16	15 ... 300	600	0.50 ... 4.50	-40 ... +140
KP229E2701	SP000699514	PG-DSOF-8-16	10 ... 300	600	0.50 ... 4.50	-40 ... +140
▼ KP229E3518	SP000808692	PG-DSOF-8-16	50 ... 350	600	0.50 ... 4.50	-40 ... +140
▼ KP229L2920	SP000788810	PG-DSOF-8-16	60 ... 260	600	0.30 ... 4.70	-40 ... +140

Type	Ordering Code	Package	Data			
			Pressure Range	$V_s$	Acceleration Range	Operating Temperature Range
			kPa	V	g	°C

#### System-in-a-Package Tire Pressure Sensor (TPMS)

■ SP30T-00E00-06B	SP000411794	PG-DSOSP-14-6	100 ... 1600	2.1 ... 3.6	-12 ... -115	-40 ... +125
■ SP300 V5.0-E106-0	SP000435430	PG-DSOSP-14-6	100 ... 450	2.1 ... 3.6	-12 ... -115	-40 ... +125
■ SP300 V5.0-E116-0	SP000477044	PG-DSOSP-14-6	100 ... 900	2.1 ... 3.6	-12 ... -115	-40 ... +125
■ SP300 V5.0-E206-0	SP000477042	PG-DSOSP-14-6	100 ... 450	2.1 ... 3.6	-	-40 ... +125
■ SP300 V5.0-E216-0	SP000477040	PG-DSOSP-14-6	100 ... 900	2.1 ... 3.6	-	-40 ... +125
SP370-23-10.6-0	SP000707702	PG-DSOSP-14-6	100 ... 450	1.9 ... 3.6	-	-40 ... +125

SMD = Surface Mounted Device

# Sensors

Type	Ordering Code	Package	Description				
			Application	Technology	Direction Detection (PWM)	Vibration Suppression	Type of Hysteresis
<b>Magnetic Sensors</b>							
<b>Rotational Speed Sensors</b>							
TLE4921-5U	SP000013593	PG-SSO-4-1	Transmission/ Crankshaft	Hall	-	-	visible fixed
TLE4923	SP000011875	PG-SSO-3-6	ABS/ Transmission	Hall	-	-	visible fixed
TLE4924C-1	SP000718170	PG-SSO-3-9	Crankshaft	Hall	-	-	visible fixed
TLE4924C-2	SP000718250	PG-SSO-3-9	Crankshaft	Hall	-	-	visible adaptive
▼ TLE4926C	SP000763374	PG-SSO-3-9	Crankshaft	Hall	-	-	hidden fixed
TLE4927C	SP000718266	PG-SSO-3-9	Transmission/ Crankshaft	Hall	-	-	hidden adaptive
▼ TLE4928C	SP000718274	PG-SSO-3-9	Transmission/ Crankshaft	Hall	-	-	hidden fixed
TLE4941	SP000015115	PG-SSO-2-1	ABS/ Transmission	Hall	-	-	hidden fixed
TLE4941C	SP000710666	PG-SSO-2-2	ABS/ Transmission	Hall	-	-	hidden fixed
▼ TLE4941PLUSC	SP000478508	PG-SSO-2-2	ABS/ Transmission	Hall	-	-	hidden fixed
TLE4941-1	SP000014942	PG-SSO-2-1	ABS/ Transmission	Hall	-	-	hidden fixed
TLE4941-1C	SP000710654	PG-SSO-2-2	ABS/ Transmission	Hall	-	-	hidden fixed
TLE4942-1	SP000015067	PG-SSO-2-1	ABS/ Transmission	Hall	yes	-	hidden fixed
TLE4942-1C	SP000710676	PG-SSO-2-2	ABS/ Transmission	Hall	yes	-	hidden fixed
TLE4947-1	SP000374675	PG-SSO-2-1	ABS/ Transmission	Hall	-	-	hidden fixed
▼ TLE4947-1C	SP000710686	PG-SSO-2-1	ABS	Hall	-	-	hidden fixed
TLE4953	SP000278512	PG-SSO-2-1	Transmission	Hall	yes	yes	visible adaptive
▼ TLE4953C	SP000710696	PG-SSO-2-1	Transmission	Hall	yes	yes	visible adaptive
▼ TLE4957C E6747	SP000649296	PG-SSO-3-92	Transmission/ Crankshaft	Hall	-	yes	visible adaptive
▼ TLE4983C	SP000614788	PG-SSO-3-9	Camshaft	Hall	-	-	hidden fixed
▼ TLE4984C	SP000374268	PG-SSO-3-9	Camshaft	Hall	-	-	hidden fixed
TLE5025C E6747	SP000317777	PG-SSO-3-92	Transmission/ Crankshaft	iGMR	-	-	hidden adaptive
TLE5027C E6747	SP000317779	PG-SSO-3-92	Transmission/ Crankshaft	iGMR	yes	-	hidden adaptive

SMD = Surface Mounted Device

Type	Ordering Code	Package	Description		
			Application	Interface	Direction Detection

**Magnetic Sensors****Hall-Effect Switches Chopped (automotive)**

TLE4906K	SP000475028	PG-SC59-3-4	Unipolar Switch	Open Collector	no
TLE4906L	SP000012949	PG-SSO-3-2	Unipolar Switch	Open Collector	no
TLE4946K	SP000392737	PG-SC59-3-2	Latch	Open Collector	no
TLE4946-2K	SP000472424	PG-SC59-3-4			
TLE4946-2L	SP000398352	PG-SSO-3-2	Latch	Open Collector	no
TLE4946-1L	SP000015003	PG-SSO-3-2			
TLE4976-1K	SP000475038	PG-SC59-3-4	Unipolar Switch	Current	no
TLE4976-2K	SP000505028	PG-SC59-3-2			
TLE4976L	SP000012951	PG-SSO-3-2	Unipolar Switch	Current	no
TLE4966K	SP000392740	PG-TSOP6-6-3	Latch	Open Collector	yes
▼ TLE4966K E6710	SP000676828	PG-TSOP6-6-3			
▼ TLE4966-2K	SP000788888	PG-TSOP6-6-3	Latch	Open Collector	yes
▼ TLE4966-3K	SP000835522	PG-TSOP6-6-3	Latch	Open Collector	yes
TLE4966L	SP000014135	PG-SSO-4-1	Latch	Open Collector	yes

**Hall-Effect Switches Chopped (industrial)**

TLI4906K	SP000604306	PG-SC59-3-4	Unipolar Switch	Open Collector	no
TLI4906L	SP000604320	PG-SSO-3-2	Unipolar Switch	Open Collector	no
TLI4946K	SP000604398	PG-SC59-3-24	Latch	Open Collector	no
TLI4946-2K	SP000604328	PG-SC59-3-4			
TLI4946-2L	SP000604336	PG-SSO-3-2	Latch	Open Collector	no

**Hall-Effect Switches Chopped (consumer)**

TLV4906K	SP000604310	PG-SC59-3-4	Unipolar Switch	Open Collector	no
TLV4906L	SP000604324	PG-SSO-3-2	Unipolar Switch	Open Collector	no
TLV4946K	SP000604402	PG-SC59-3-4	Latch	Open Collector	no
TLV4946-2K	SP000604332	PG-SC59-3-4			
TLV4946-2L	SP000604340	PG-SSO-3-2	Latch	Open Collector	no
▼ TLV4976-1K	SP000803730	PG-SC59-3-5	Unipolar Switch	Current	no
▼ TLV4976-2K	SP000803734	PG-SC59-3-5			

**Hall Switches Unchopped**

■ TLE 4905G	SP000793230	P-SOT89-4-2	Unipolar Switch	Open Collector	no
■ TLE4905L	SP000016544	PG-SSO-3-2	Unipolar Switch	Open Collector	no
■ TLE4905L E6433	SP000016545	PG-SSO-3-2	Unipolar Switch	Open Collector	no
■ TLE4935G	SP000793366	P-SOT89-4-2	Latch	Open Collector	no
■ TLE4935L	SP000016376	PG-SSO-3-2	Latch	Open Collector	no
■ TLE4945L	SP000793498	PG-SSO-3-2	Bipolar Switch	Open Collector	no
■ TLE4945-2L	SP000793494	PG-SSO-3-2			
■ TLE4945-2G	SP000793370	P-SOT89-4-2	Bipolar Switch	Open Collector	no

**Low Power Hall Switches**

TLE4913	SP000013490	PG-SC59-3-1	Omnipolar Switch	Open Collector	no
TLE4917	SP000013477	PG-TSOP6-6-1			
TLE4916-1K	SP000649954	PG-SC59-3-4	Latch	Open Collector	no

SMD = Surface Mounted Device

# Sensors

Type	Ordering Code	Package	Description		
			Application	Programmable	Interface

## Magnetic Sensors

### Position & Current Sensing

TLE4990	SP000012542	PG-SSO-4-1	Linear Hall	yes	analog
TLE4990 E6782	SP000014373	PG-SSO-4-1	Linear Hall	yes	analog
TLE4997E2	SP000235288	PG-SSO-3-10	Linear Hall	yes	analog
TLE4998P3	SP000412104	PG-SSO-3-10	Linear Hall	yes	PWM
TLE4998P4	SP000412106	PG-SSO-4-1			
TLE4998P3C	SP000481486	PG-SSO-3-9	Linear Hall	yes	SENT
TLE4998P3C E1200	SP000597466	PG-SSO-3-9			
TLE4998S3	SP000412108	PG-SSO-3-10	Linear Hall	yes	SENT
TLE4998S4	SP000412110	PG-SSO-4-1			
TLE4998S3C	SP000481484	PG-SSO-3-9	Linear Hall	yes	SENT
TLE4998C3	SP000476468	PG-SSO-3-10	Linear Hall	yes	SPC
TLE4998C4	SP000440972	PG-SSO-4-1			
TLE4998C3C	SP000481482	PG-SSO-3-9	Linear Hall	yes	SPC
▼ TLE5009	SP000794540	PG-DSO-8-1	Angle iGMR	no	analog
TLE5011	SP000857850	PG-DSO-8-1	Angle iGMR	no	SPI
▼ TLE5012	SP000477068	PG-DSO-8-1	Angle iGMR	no	SPI, PWM, HSM, IIF
▼ TLI5012	SP000634318	PG-DSO-8-1	Angle iGMR	no	SPI, PWM

SMD = Surface Mounted Device



Type	Ordering Code	Package	Description			
			Frequency MHz	Modulation Type	Digital Baseband/ Autonomous RX	Operating Temperature Range °C

**Wireless Control****Receiver (single channel)**

TDA5200	SP000016381	PG-TSSOP-28-1	434/868	ASK	no	-40 ... +85
TDA5201	SP000012902	PG-TSSOP-28-1	315/345	ASK	no	-40 ... +85
TDA5210	SP000016384	PG-TSSOP-28-1	434/868	ASK/FSK	no	-40 ... +105
TDA5211	SP000016390	PG-TSSOP-28-1	315/345	ASK/FSK	no	-40 ... +105
TDA5212	SP000013430	PG-TSSOP-28-1	915	ASK/FSK	no	-40 ... +85
TDA5220	SP000014342	PG-TSSOP-28-1	434/868	ASK/FSK	no	-40 ... +105
▼ TDA5235	SP000507674	PG-TSSOP-28-1	315/434/868/915	ASK/FSK	yes	-40 ... +105
TDA7200	SP000296473	PG-TSSOP-28-1	434	ASK/FSK	no	-20 ... +70
TDA7210	SP000524274	PG-TSSOP-28-1	434/868	ASK/FSK	no	-40 ... +85
TDA7210V	SP000698080	PG-VQFN-32	434/868	ASK/FSK	no	-40 ... +85
▼ TDA7255V	SP000698114	PG-VQFN-40	434	ASK/FSK	no	-40 ... +105

**Receiver (multi channel)**

TDA5221	SP000014343	PG-TSSOP-28-1	315	ASK/FSK	no	-40 ... +105
▼ TDA5225	SP000507672	PG-TSSOP-28-1	315/434/868/915	ASK/FSK	no	-40 ... +105
TDA5230	SP000076520	PG-TSSOP-28-1	434/868	ASK/FSK	no	-40 ... +105
TDA5231	SP000202847	PG-TSSOP-28-1	315	ASK/FSK	no	-40 ... +105
▼ TDA5240	SP000550860	PG-TSSOP-28-1	315/434/868/915	ASK/FSK	no	-40 ... +105

SMD = Surface Mounted Device

# Sensors

Type	Ordering Code	Package	Description			
			Frequency MHz	Modulation Type	Transmit Power (at 3 V) dBm	Operating Temperature Range °C

## WirelessControl

### Transmitter (single channel)

TDA5102	SP000013432	PG-TSSOP-16-1	915	ASK/FSK	2.0	-25 ... +85
TDA5103A	SP000305485	PG-TSSOP-10-1	345	ASK	5.0	-25 ... +85
TDA7100	SP000296466	PG-TSSOP-10-1	434	ASK/FSK	5.0	-25 ... +70
TDA7110	SP000524278	PG-TSSOP-16-1	434/868	ASK/FSK	10.0	-40 ... +85
TDA7110F	SP000611108	PG-TSSOP-10-1	434	ASK/FSK	10.0	-40 ... +85
TDA7116F	SP000611114	PG-TSSOP-10-1	868	ASK/FSK	10.0	-40 ... +85
TDK5100	SP000014557	PG-TSSOP-16-1	434/868	ASK/FSK	5.0/2.0	-40 ... +125
TDK5100 F	SP000014745	PG-TSSOP-10-1	434	ASK/FSK	5.0	-40 ... +125
TDK5101	SP000014559	PG-TSSOP-16-1	315	ASK/FSK	5.0	-40 ... +125
TDK5101F	SP000014744	PG-TSSOP-10-1	315	ASK/FSK	5.0	-40 ... +125
TDK5110	SP000013532	PG-TSSOP-16-1	434/868	ASK/FSK	10.0	-40 ... +125
TDK5110 F	SP000056180	PG-TSSOP-10-1	434	ASK/FSK	10.0	-40 ... +125
TDK5111	SP000014017	PG-TSSOP-16-1	315	ASK/FSK	10.0	-40 ... +125
TDK5111F	SP000056181	PG-TSSOP-10-1	315	ASK/FSK	10.0	-40 ... +125
TDK5116F	SP000056182	PG-TSSOP-10-1	868	ASK/FSK	10.0	-40 ... +125

### Transmitter (multi channel)

TDA5150	SP000300415	PG-TSSOP-10-1	315/434/868/915	ASK/FSK	5.0/8.0/10.0	-40 ... +85
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### Transmitter + µC

PMA5105	SP000463432	PG-TSSOP-38-1	315/434/868/915	ASK/FSK	5.0/8.0/10.0	-40 ... +1285
PMA5110	SP000373573	PG-TSSOP-38-1	315/434/868/915	ASK/FSK	5.0/8.0/10.0	-40 ... +125
PMA7105	SP000450408	PG-TSSOP-38-1	315/434/868/915	ASK/FSK	5.0/8.0/10.0	-40 ... +85
PMA7106	SP000450410	PG-TSSOP-38-1	315/434/868/915	ASK/FSK	5.0/8.0/10.0	-40 ... +85
PMA7107	SP000450412	PG-TSSOP-38-1	315/434/868/915	ASK/FSK	5.0/8.0/10.0	-40 ... +85
PMA7110	SP000430596	PG-TSSOP-38-1	315/434/868/915	ASK/FSK	5.0/8.0/10.0	-40 ... +85

### Transceiver (single channel)

TDA5250	SP000012956	PG-TSSOP-38-1	868	ASK/FSK	9.0	-40 ... +85
TDA5251	SP000014554	PG-TSSOP-38-1	315	ASK/FSK	9.0	-40 ... +85
TDA5252	SP000057332	PG-TSSOP-38-1	915	ASK/FSK	9.0	-40 ... +85
TDA5255	SP000014555	PG-TSSOP-38-1	434	ASK/FSK	9.0	-40 ... +85

SMD = Surface Mounted Device

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## Chip Card & Security ICs

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Contactless Products .....	188



Type	Ordering Code	Package	Description
<b>Smart Card Memories</b>			
<b>Data Carrier ICs with Sampe Code</b>			
◆ SLE 5518 M3.2	SP000309118	T-M3.2-6-1	Intelligent 1024-byte EEPROM with write protection function, will replace SLE 4418
◆ SLE 5518 MFC3.1	SP000309123	S-MFC3.1-6-1	
◆ SLE 5528 M3.2	SP000268874	T-M3.2-6-1	Intelligent 1024-byte EEPROM with write protection function and Programmable Security Code (PSC), will replace SLE 4428
◆ SLE 5528 MFC3.1	SP000269210	S-MFC3.1-6-1	
◆ SLE 5532 M3.2	SP000232944	T-M3.2-6-1	Intelligent 256-byte EEPROM with write protection function, will replace SLE 4432
◆ SLE 5532 MFC3.1	SP000532038	S-MFC3.1-6-1	
◆ SLE 5538 M3.2	SP000309116	T-M3.2-6-1	Intelligent 1024-byte EEPROM with write and read-out protection function and Programmable Security Code (PSC)
◆ SLE 5538 MFC3.1	SP000309117	S-MFC3.1-6-1	
◆ SLE 5542 M3.2	SP000232943	T-M3.2-6-1	Intelligent 256-byte EEPROM with write protection function and Programmable Security Code (PSC), will replace SLE 4442
◆ SLE 5542 MFC3.1	SP000232942	S-MFC3.1-6-1	
◆ SLE 5552 M3.2	SP000232946	T-M3.2-6-1	Intelligent 256-byte EEPROM with write and read-out protection function and Programmable Security Code (PSC)
◆ SLE 5552 MFC3.1	SP000232947	S-MFC3.1-6-1	

SMD = Surface Mounted Device

# Chip Card & Security ICs

Type	Ordering Code	Package	Description
<b>Contactless Products</b>			
<b>Contactless Memories my-d™ vicinity</b>			
◆ SRF 55V02P NB	SP000405806	wafer sawn	Intelligent 2.5-Kbit EEPROM with contactless interface complying to ISO/IEC 15693 and ISO/IEC18000-3 mode 1
◆ SRF 55V02P MCC2	SP000430934	P-MCC2-2-1	
◆ SRF 55V02P MCC8	SP000520644	P-MCC8-2-1	Intelligent 2.5-Kbit EEPROM with contactless interface complying to ISO/IEC 15693 and ISO/IEC18000-3 mode 1, high input capacitance
◆ SRF 55V02P HC NB	SP000292806	wafer	
◆ SRF 55V02P HC NB	SP000245649	wafer sawn	Intelligent 2.5-Kbit EEPROM with contactless interface complying to ISO/IEC 15693 and ISO/IEC18000-3 mode 1 and security logic, security algorithm, 64-bit key length, selective memory access control, 32-bit MAC, transport key
◆▼ SRF 55V02P HC MCC2	SP000630956	P-MCC2-2-1	
◆▼ SRF 55V02S NB	SP000622602	wafer sawn	Intelligent 2.5-Kbit EEPROM with contactless interface complying to ISO/IEC 15693 and ISO/IEC18000-3 mode 1 and security logic, security algorithm, 64-bit key length, selective memory access control, 32-bit MAC, transport key
◆▼ SRF 55V02S MCC8	SP000712968	P-MCC8-2-1	
◆▼ SRF 55V02S HC NB	SP000657790	wafer sawn	Intelligent 2.5-Kbit EEPROM with contactless interface complying to ISO/IEC 15693 and ISO/IEC18000-3 mode 1 and security logic, security algorithm, 64-bit key length, selective memory access control, 32-bit MAC, transport key, high input capacitance
◆ SRF 55V10P NB	SP000606192	wafer sawn	Intelligent 10-Kbit EEPROM with contactless interface complying to ISO/IEC 15693 and ISO/IEC18000-3 mode 1
◆ SRF 55V10P MCC2	SP000430930	P-MCC2-2-1	
◆ SRF 55V10P MCC8	SP000520654	P-MCC8-2-1	Intelligent 10-Kbit EEPROM with contactless interface complying to ISO/IEC 15693 and ISO/IEC18000-3 mode 1, high input capacitance
◆ SRF 55V10P HC NB	SP000460854	wafer	
◆ SRF 55V10P HC NB	SP000315963	wafer sawn	Intelligent 10-Kbit EEPROM with contactless interface complying to ISO/IEC 15693 and security logic, security algorithm, 64-bit key length, selective memory access control, 32-bit MAC, transport key
◆▼ SRF 55V10S NB	SP000614132	wafer sawn	
◆▼ SRF 55V10S MCC2	SP000860226	P-MCC2-2-1	Intelligent 10-Kbit EEPROM with contactless interface complying to ISO/IEC 15693 and security logic, security algorithm, 64-bit key length, selective memory access control, 32-bit MAC, transport key, high input capacitance
◆▼ SRF 55V10S MCC8	SP000722238	P-MCC8-2-1	
◆ SRF 55V10S HC NB	SP000614128	wafer sawn	
<b>Contactless Memories Phase Jitter Modulation (PJM)</b>			
◆ SRF 66V10IT NB	SP000211674	wafer sawn	Intelligent 10-Kbit EEPROM with contactless interface complying to ISO/IEC 18000-3 mode 2, PJM item tag
◆ SRF 66V10ST NB	SP000206820	wafer sawn	Intelligent 10-Kbit EEPROM with contactless interface enhancement of ISO/IEC 18000-3 mode 2, stack tag
<b>Contactless Memories my-d™ move</b>			
◆ SLE 66R01P NB	SP000650632	wafer sawn	Intelligent 1.216-bit EEPROM with contactless interface complying to ISO/IEC 14443 type A and support of NFC Forum™ type 2 tag operation
<b>Contactless Memories my-d™ NFC</b>			
◆ SLE 66R04P NB	SP000410318	wafer	Intelligent 616-byte EEPROM with contactless interface complying to ISO/IEC 14443 type A and support of NFC Forum™ type 2 tag operation, (no NFC memory)
◆ SLE 66R04P MCC2	SP000410322	P-MCC2-2-1	
◆ SLE 66R16P NB	SP000410326	wafer	Intelligent 2048-byte EEPROM with contactless interface complying to ISO/IEC 14443 type A and support of NFC Forum™ type 2 tag operation, (up to 1024 bytes NFC memory)
◆ SLE 66R16P MCC2	SP000410330	P-MCC2-2-1	
◆ SLE 66R16P MCC8	SP000493784	P-MCC8-2-3	Intelligent 4096-byte EEPROM with contactless interface complying to ISO/IEC 14443 type A and support of NFC Forum™ type 2 tag operation, (up to 2048 bytes NFC memory)
◆ SLE 66R32P NB	SP000410340	wafer	
◆ SLE 66R32P MCC2	SP000410336	P-MCC2-2-1	

SMD = Surface Mounted Device

Type	Ordering Code	Package	Description
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## Contactless Products

### Contactless Memories my-d™ proximity 2

◆ SLE 66R04S NB	SP000410344	wafer	Intelligent 512-byte EEPROM with contactless interface complying to ISO/IEC 14443 type A
◆ SLE 66R04S MCC2	SP000410348	P-MCC2-2-1	
◆▼ SLE 66R04S MCC8	SP000714800	P-MCC2-8-1	
◆ SLE 66R16S NB	SP000410352	wafer	Intelligent 2048-byte EEPROM with contactless interface complying to ISO/IEC 14443 type A
◆ SLE 66R16S MCC2	SP000410360	P-MCC2-2-1	
◆▼ SLE 66R16S MCC8	SP000671906	P-MCC2-8-1	
◆ SLE 66R32S NB	SP000410364	wafer	Intelligent 4096-byte EEPROM with contactless interface complying to ISO/IEC 14443 type A
◆ SLE 66R32S MCC2	SP000410368	P-MCC2-2-1	
◆▼ SLE 66R32S MCC8	SP000714848	P-MCC2-8-1	

### Components for Contactless Terminals

◆ SLF 9620 M5.1	SP000621032	T-M5.1-8-1	Security access module with ISO/IEC 7816 interface supporting MIFARE™ compatible my-d™ algorithm, 3DES and AES128
◆ SLF 9620 NB	SP000630494	wafer sawn	

◆ For complete Chip Card ICs product portfolio please visit: [www.infineon.com/security](http://www.infineon.com/security)

SMD = Surface Mounted Device









Type		Ordering Code	Page	Type		Ordering Code	Page
<b>Numerics</b>				BAR66 (Dual)	10k	SP000737168	147
1ED020I12-F		SP000391828	120	BAR66 (Dual)	3k	SP000010187	147
1ED020I12FA		SP000436718	120	BAR67-02V	3k	SP000743448	147
2ED020I06-FA		SP000850124	120	BAR67-04 (Dual)	3k	SP000268691	147
2ED020I06-FI		SP000776988	120	BAR74	3k	SP000010202	170
2ED020I12-FI		SP000265782	120	BAR81W	3k	SP000743450	147
2N7002		SP000868322	79	BAR86-02LRH	15k	SP000653272	147
2N7002 L6433		SP000247306	79	BAR88-02LRH	15k	SP000051042	147
2N7002DW		SP000408436	79	BAR88-02V	3k	SP000743452	147
6ED003L06-F		SP000246764	120	BAR89-02LRH	15k	SP000051043	147
				BAR89-02LRH	50k	SP000083407	147
				BAR90-02LRH	15k	SP000051045	147
				BAR90-02LS	15k	SP000200323	147
<b>B</b>				BAS116	10k	SP000010196	171
BA592	10k	SP000010142	148	BAS116	3k	SP000010194	171
BA592	3k	SP000010141	148	BAS125-04W (Dual)	3k	SP000749598	159
BA595	10k	SP000010148	148	BAS125-05W (Dual)	3k	SP000749600	159
BA595	3k	SP000010146	148	BAS125-07W (Dual)	3k	SP000749602	159
BA885	3k	SP000010151	148	BAS140W	3k	SP000010199	159
BA892	10k	SP000734328	148	BAS16 W	10k	SP000753168	170
BA892	3k	SP000734344	148	BAS16 W	3k	SP000753166	170
BA892	8k	SP000745042	148	BAS16	10k	SP000010201	170
BA892-02V	10k	SP000745060	148	BAS16	3k	SP000010203	170
BA892-02V	3k	SP000745054	148	BAS16-02L	15k	SP000013548	170
BA892-02V	8k	SP000745052	148	BAS16-02V	3k	SP000752008	170
BA895	3k	SP000745062	148	BAS16-02W	3k	SP000752010	170
BAL74	3k	SP000014992	170	BAS16-03W	3k	SP000010213	170
BAL99	10k	SP000010161	170	BAS16-07L4 (Dual)	3k	SP000013972	170
BAL99	3k	SP000010159	170	BAS170W	3k	SP000010216	159
BAR14-1 (Dual)	3k	SP000010164	148	BAS21	10k	SP000010219	170
BAR15-1 (Dual)	3k	SP000010163	148	BAS21	3k	SP000010217	170
BAR16-1 (Dual)	3k	SP000010165	148	BAS21-03W	10k	SP000082470	170
BAR50-02L	15k	SP000013603	147	BAS21-03W	3k	SP000012522	170
BAR50-02V	3k	SP000742882	147	BAS21U (Triple)	10k	SP000471142	170
BAR50-03W	3k	SP000012920	147	BAS21U (Triple)	3k	SP000012610	170
BAR61 (Triple)	3k	SP000010169	147	BAS28 (Dual)	10k	SP000010228	170
BAR61 (Triple)	3k	SP000010169	148	BAS28 (Dual)	3k	SP000010225	170
BAR63-02L	15k	SP000013537	147	BAS28W (Dual)	3k	SP000753170	170
BAR63-02V	3k	SP000742888	147	BAS3005A-02V	3k	SP000749684	159
BAR63-02W	10k	SP000742894	147	BAS3005B-02V	3k	SP000749682	159
BAR63-02W	3k	SP000742890	147	BAS3005S-02LRH	15k	SP000472478	159
BAR63-03W	3k	SP000010172	147	BAS3007A-RPP	3k	SP000356003	171
BAR63-04 (Dual)	3k	SP000012206	147	BAS3010A-03W	3k	SP000068629	159
BAR63-04W (Dual)	3k	SP000742896	147	BAS3010B-03W	3k	SP000068630	159
BAR63-05 (Dual)	3k	SP000012207	147	BAS3010S-02LRH	15k	SP000472480	159
BAR63-05W (Dual)	3k	SP000766086	147	BAS3020B	3k	SP000749686	159
BAR63-06 (Dual)	3k	SP000012208	147	BAS40	10k	SP000010233	159
BAR63-06W (Dual)	3k	SP000743402	147	BAS40	3k	SP000010235	159
BAR64-02LRH	15k	SP000051041	147	BAS4002A-RPP	3k	SP000443736	171
BAR64-02V	3k	SP000743408	147	BAS40-02L	15k	SP000013549	159
BAR64-03W	3k	SP000010179	147	BAS4002S-02LRH	15k	SP000472476	159
BAR64-04 (Dual)	3k	SP000012211	147	BAS40-04 (Dual)	10k	SP000010243	159
BAR64-04W (Dual)	3k	SP000743414	147	BAS40-04 (Dual)	3k	SP000010241	159
BAR64-05 (Dual)	10k	SP000012214	147	BAS40-05 (Dual)	10k	SP000010242	159
BAR64-05 (Dual)	3k	SP000012212	147	BAS40-05 (Dual)	3k	SP000010240	159
BAR64-05W (Dual)	10k	SP000743442	147	BAS40-05W (Dual)	3k	SP000749762	159
BAR64-05W (Dual)	3k	SP000734362	147	BAS40-06 (Dual)	10k	SP000010244	159
BAR64-06 (Dual)	3k	SP000012213	147	BAS40-06 (Dual)	3k	SP000010239	159
BAR64-06W (Dual)	3k	SP000743444	147	BAS40-06W (Dual)	3k	SP000749764	159
BAR64-07 (Dual)	3k	SP000010184	147	BAS40-07 (Dual)	3k	SP000010245	159
BAR65-02V	3k	SP000743446	147	BAS40-07W (Dual)	3k	SP000749806	159
BAR65-03W	3k	SP000010186	147				

# Summary of Types

Type		Ordering Code	Page	Type		Ordering Code	Page
BAS52-02V	10k	SP000749810 (SP000535510)	159	BAT62-02W	3k	SP000743522	152
BAS52-02V	3k	SP000749808	159	BAT62-03W	3k	SP000010303	152
BAS70	10k	SP000010248	160	BAT62-07W (Dual)	3k	SP000743524	152
BAS70	3k	SP000010247	160	BAT63-02V	3k	SP000743526	152
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BAS70-04 (Dual)	10k	SP000010256	160	BAT64-02W	3k	SP000749836	160
BAS70-04 (Dual)	3k	SP000010253	160	BAT64-04 (Dual)	10k	SP000010314	160
BAS70-04S (Quad)	3k	SP000749814	160	BAT64-04 (Dual)	3k	SP000010309	160
BAS70-04W (Dual)	3k	SP000749820	160	BAT64-04W (Dual)	3k	SP000749838	160
BAS70-05 (Dual)	10k	SP000078827	160	BAT64-05 (Dual)	3k	SP000010310	160
BAS70-05 (Dual)	3k	SP000010252	160	BAT64-05W (Dual)	3k	SP000749840	160
BAS70-05W (Dual)	3k	SP000749822	160	BAT64-06 (Dual)	3k	SP000010311	160
BAS70-06 (Dual)	10k	SP000010260	160	BAT64-06W (Dual)	3k	SP000749842	160
BAS70-06 (Dual)	3k	SP000010254	160	BAT68	3k	SP000012514	152
BAS70-06W (Dual)	3k	SP000749824	160	BAT68-04 (Dual)	3k	SP000010320	152
BAS70-07 (Dual)	10k	SP000010269	160	BAT68-04W (Dual)	3k	SP000743536	152
BAS70-07 (Dual)	3k	SP000010266	160	BAT68-06 (Dual)	3k	SP000010322	152
BAS70-07W (Dual)	3k	SP000749826	160	BAT68-06W (Dual)	3k	SP000743538	152
BAT15-02LRH	15k	SP000055124	152	BAV170 (Dual)	10k	SP000010332	171
BAT15-02LS	15k	SP000273991	152	BAV170 (Dual)	3k	SP000010325	171
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BAT15-099 (Dual)	10k	SP000010275	152	BAV70U (Quad)	3k	SP000012931	170
BAT15-099 (Dual)	3k	SP000010273	152	BAV70W (Dual)	3k	SP000754042	170
BAT15-099LRH (Dual)	15k	SP000055343	152	BAV99S (Quad)	10k	SP000754048	170
BAT165	3k	SP000010277	159	BAV99S (Quad)	3k	SP000754046	170
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BAT17-04 (Dual)	3k	SP000010283	152	BAW101 (Dual)	10k	SP000010364	170
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BAT17-05 (Dual)	3k	SP000010285	152	BAW156 (Dual)	3k	SP000010327	171
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BAT240A (Dual)	3k	SP000010292	160	BB535 unmatched	3k	SP000010377	149
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BAT54-03W	3k	SP000426668	160	BB555-02V matched	3k	SP000745088	149
BAT54-04 (Dual)	3k	SP000068500	160	BB555-02V matched	8k	SP000745092)	149
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BAT54-05 (Dual)	3k	SP000068509	160	BB565 matched	3k	SP000745094	149
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BF2040W	3k	SP000753484	151	BFP640ESD	3k	SP000785482	142
BF5020	3k	SP000474404	151	BFP640F	3k	SP000750404 (SP000015118)	142
BF5020R	3k	SP000474406	151	BFP640FESD	3k	SP000607096	142
BF5020W	3k	SP000753486	151	BFP650	3k	SP000750406	143
BF5030	3k	SP000437952	151	BFP650F	3k	SP000750408 (SP000368489)	143
BF5030R	3k	SP000437954	151	BFP720	3k	SP000750410	142
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BF517	3k	SP000010958	141	BFP720F	3k	SP000750412 (SP000463884)	142
BF770A	3k	SP000010965	143	BFP720FESD	3k	SP000605554	142
BF771	3k	SP000010967	143	BFP740ESD	3k	SP000785486	142
BF775	3k	SP000010972	141	BFP740F	3k	SP000750416 (SP000055205)	143
BF799	3k	SP000010973	143	BFP740FESD	3k	SP000605556	142
BF799W	3k	SP000734406	143	BFP750	3k	SP000876304	143
BF998	3k	SP000010978	151	BFR19S	1k	SP000011042	143
BF998R	3k	SP000010979	151	BFR106	3k	SP000011044	143
BF999	10k	SP000426300	151	BFR181	3k	SP000011047	141
BF999	3k	SP000010985	151	BFR181W	3k	SP000750418	141
BFN18	1k	SP000010997	169	BFR182	3k	SP000011051	141
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BFN39	1k	SP000748532 (SP000014781)	169	BFR193W	3k	SP000734404	143
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BFP182R	3k	SP000011016	141	BFR35AP	3k	SP000011060	141
BFP182W	3k	SP000745176	141	BFR360F	3k	SP000750428 (SP000012979)	141
BFP183	3k	SP000011018	141	BFR360L3	15k	SP000013561	141
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BFP196	3k	SP000011027	143	BFR740L3RH	15k	SP000252393	142
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BG3430R	3k	SP000753498	151	BSC014N03LS G	SP000394677	73
BG5120K	3k	SP000753500	151	BSC014N03MS G	SP000394681	76
BG5412K	3k	SP000753502	151	BSC016N03LS G	SP000237663	73
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BGA416	3k	SP000013607	145	BSC016N04LS G	SP000394801	77
BGA427	3k	SP000753506	145	BSC017N04NS G	SP000394684	77
BGA428	3k	SP000753508	145	BSC018N04LS G	SP000388293	77
BGA461	7.5k	SP000463628	145	BSC018NE2LS	SP000756336	73
BGA612	3k	SP000753510	145	BSC019N02KS G	SP000307376	73
BGA614	3k	SP000753512	145	BSC019N04NS G	SP000388299	77
BGA615L7	7.5k	SP000016766	145	BSC020N03LS G	SP000237662	73
BGA616	3k	SP000753514	145	BSC020N03MS G	SP000311503	76
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BGA622L7	7.5k	SP000017535	145	BSC025N03LS G	SP000269781	73
BGA628L7	7.5k	SP000529594	145	BSC025N03MS G	SP000311505	76
BGA711L7	7.5k	SP000417112	145	BSC026N02KS G	SP000379664	73
BGA715L7	7.5k	SP000430024	145	BSC027N04LS G	SP000354810	77
BGA728L7	7.5k	SP000409848	145	BSC028N06LS3 G	SP000453652	78
BGA734L16	7.5k	SP000293791	145	BSC030N03LS G	SP000237661	73
BGA735N16	7.5k	SP000659248	145	BSC030N03MS G	SP000311506	76
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BGA748L16	7.5k	SP000608112	145	BSC030P03NS3 G	SP000442470	95
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BGA771N16	7.5k	SP000417116	145	BSC037N03MSC G	SP000527434	73
BGA777L7	7.5k	SP000627608	145	BSC042N03LS G	SP000302864	73
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BSC109N10NS3 G	SP000778132	82	BSO038N03MSC G	SP000527604	76
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IKB20N60T	SP000054883	102	IPA50R520CP		SP000236076	86
IKD04N60R	SP000623346	104	IPA60R099C6		SP000658000	90
IKD06N60R	SP000623350	104	IPA60R125C6		SP000685848	90
IKD10N60R	SP000629350	104	IPA60R125CP		SP000095275	87
IKD15N60R	SP000539764	104	IPA60R160C6		SP000652794	90
IKI04N60T	SP000607046	102	IPA60R165CP		SP000096437	87
IKP01N120H2	SP000683050	100	IPA60R190C6		SP000621152	90
IKP03N120H2	SP000683052	100	IPA60R190E6		SP000797380	91
IKP04N60T	SP000683054	102	IPA60R199CP		SP000094146	87
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IPA60R299CP	SP000096438	87	IPB049N06L3 G	SP000453056	78
IPA60R380C6	SP000660632	90	IPB049NE7N3 G	SP000641752	80
IPA60R380E6	SP000795300	91	IPB050N06N G	SP000204170	78
IPA60R385CP	SP000089316	87	IPB052N04N G	SP000391505	77
IPA60R450E6	SP000842484	91	IPB054N06N3 G	SP000446782	78
IPA60R520C6	SP000645072	90	IPB054N08N3 G	SP000395166	80
IPA60R520CP	SP000405856	87	IPB055N03L G	SP000304110	74
IPA60R520E6	SP000797614	91	IPB065N03L G	SP000254709	74
IPA60R600C6	SP000660624	90	IPB065N15N3 G	SP000521724	84
IPA60R600CP	SP000405884	87	IPB067N08N3 G	SP000443636	80
IPA60R600E6	SP000797298	91	IPB072N15N3 G	SP000386664	84
IPA60R750E6	SP000842480	91	IPB075N04L G	SP000387943	77
IPA60R950C6	SP000629360	90	IPB080N03L G	SP000304104	74
IPA65R190C6	SP000863892	91	IPB081N06L3 G	SP000398076	78
IPA65R190E6	SP000863904	92	IPB083N10N3 G	SP000458812	82
IPA65R280C6	SP000720898	91	IPB090N06N3 G	SP000398042	78
IPA65R280E6	SP000795276	92	IPB093N04L G	SP000387937	77
IPA65R380C6	SP000720896	91	IPB096N03L G	SP000254711	74
IPA65R380E6	SP000795282	92	IPB097N08N3 G	SP000474200	80
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IPA65R600E6	SP000799140	92	IPB100N04S2L-03	SP000219065	66
IPA90R1K0C3	SP000413712	93	IPB100N04S3-03	SP000260847	66
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IPA90R500C3	SP000413716	93	IPB100N06S2L-05	SP000219003	68
IPA90R800C3	SP000413718	93	IPB100N08S2-07	SP000219044	70
IPB009N03L G	SP000394657	74	IPB100N08S2L-07	SP000219053	70
IPB011N04L G	SP000391498	77	IPB100N10S3-05	SP000261243	71
IPB011N04N G	SP000388298	77	IPB107N20N3 G	SP000676406	85
IPB015N04L G	SP000387948	77	IPB108N15N3 G	SP000677862	84
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IPB017N06N3 G	SP000434404	78	IPB120N04S4-01	SP000705700	66
IPB019N06L3 G	SP000453020	78	IPB120N04S4-02	SP000764726	66
IPB019N08N3 G	SP000444110	80	IPB120N06S4-02	SP000415560	69
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IPB020NE7N3 G	SP000676950	80	IPB120N06S4-H1	SP000396274	69
IPB021N06N3 G	SP000452248	78	IPB123N10N3 G	SP000485968	82
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IPB025N10N3 G	SP000469888	82	IPB160N04S2L-03	SP000218153	66
IPB027N10N3 G	SP000506508	82	IPB160N04S3-H2	SP000254818	66
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IPB031NE7N3 G	SP000641730	80	IPB180N03S4L-H	SP000555050	65
IPB034N03L G	SP000304126	74	IPB180N04S3-02	SP000382560	66
IPB034N06L3 G	SP000398062	78	IPB180N04S4-00	SP000646176	66
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IPB034N06N3 G	SP000397990	78	IPB180N04S4-H1	SP000705694	66
IPB035N08N3 G	SP000457588	80	IPB180N06S4-H1	SP000415562	69
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IPB037N06N3 G	SP000397986	78	IPB200N25N3 G	SP000677896	85
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IPB039N04L G	SP000391495	77	IPB230N06L3 G	SP000457584	78
IPB039N10N3 G	SP000482428	82	IPB260N06N3 G	SP000453630	78
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IPB50R199CP	SP000236092	86	IPB80N06S4-07	SP000415568	69
IPB50R250CP	SP000236093	86	IPB80N06S4L-05	SP000415570	69
IPB50R299CP	SP000236094	86	IPB80N06S4L-07	SP000415572	69
IPB53N15N3 G	SP000521718	84	IPB80N08S2-07	SP000219048	70
IPB60N25N3 G	SP000676408	85	IPB80N08S2L-07	SP000219051	70
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IPB60R099CPA	SP000315443	71	IPB80P03P4L-07	SP000396288	72
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IPB60R125CP	SP000297368	87	IPB90N06S4-04	SP000379632	69
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IPB60R199CP	SP000223256	87	IPD031N06L3 G	SP000451076	78
IPB60R199CPA	SP000539966	71	IPD034N06N3 G	SP000451070	78
IPB60R250CP	SP000358140	87	IPD035N06L3 G	SP000398066	78
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IPB60R299CPA	SP000539970	71	IPD038N06N3 G	SP000397994	78
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IPB60R385CP	SP000228365	87	IPD042P03L3 G	SP000473922	95
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IPB70N10S3-05	SP000261246	71	IPD090N03L G	SP000680636	75
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IPB80N04S3-03	SP000260848	66	IPD12CN10N G	SP000096476	82
IPB80N04S3-04	SP000261217	66	IPD12CNE8N G	SP000096477	81
IPB80N04S3-06	SP000254822	66	IPD135N03L G	SP000236951	75
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IPB80N04S4L-04	SP000646180	66	IPD160N04L G	SP000387933	77
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IPD230N06N G	SP000450200	78	IPD70N03S4L-04	SP000274986	65
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IPD30N08S2-22	SP000252169	70	IPD90N04S4-04	SP000646186	66
IPD30N08S2L-21	SP000252170	70	IPD90N04S4-05	SP000711460	66
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IPI070N08N3 G	SP000680672	80	IPI65R280E6	SP000795270	92
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SAF-TC1167-128F133HL AD-Step	SP000674708	61	SAF-XC167CI-16F20F BB-Step	SP000224688	35
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SAF-XC161CJ-16F40F BB-Step	SP000280516	28	SAF-XC167CI-16F40F BB-Step	SP000224690	35
SAF-XC161CJ-16F40F BB-Step	SP000224537	28	SAF-XC167CI-16F40F BB-Step	SP000224689	35
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