

# DISCRETE RECTIFIERS

## General Purpose

### Applications Include:

- Battery Chargers
- Induction Heating / Melting
- Motor Controls
- Power Supplies
- Transportation
- Welding

### Packages:

- Discrete Discs
- Discrete Studs

## Fast Recovery

### Applications Include:

- Induction Heating
- Medical Equipment
- Motor Controls
- Transportation
- Welding

### Packages:

- Discrete Discs
- Discrete Studs

## TABLE OF CONTENTS

Numbering System .....	G-2
Product Overview .....	G-3
General Purpose Diodes .....	G-4
Fast Recovery Diodes .....	G-6
Outline Drawings .....	G-7



## General Purpose:

**VOLTAGE: 100V TO 6500V**  
**CURRENT: 100A TO 10000A**

## Fast Recovery:

**VOLTAGE: 200V TO 4500V**  
**CURRENT: 125A TO 2000A**

Custom  
Modules

IGBT  
Assemblies

Assemblies

Fast Recovery  
& Three-Phase  
Diode Modules

Thyristor &  
Diode  
Modules

**Discrete  
Rectifiers**

Discrete  
Thyristors

Accessories

DIPIPM

IPMs

MOSFET  
Modules

IGBTs

## Numbering System

R5100615XXWA is a 150 Ampere, 600 Volt,  
General Purpose Diode (STUD)

R510 06 15 XX WA

(1) (2) (3) (4) (5)

R6031225HSYA is a 250 Ampere, 1200 Volt,  
Fast Recovery Diode (STUD)

R603 12 25 HS YA

(1) (2) (3) (4) (5)

R6201250XXOO is a 500 Ampere, 1200 Volt,  
General Purpose Diode (DISC)

R620 12 50 XX OO

(1) (2) (3) (4) (5)

R6221240HSOO is a 400 Ampere, 1200 Volt,  
Fast Recovery Diode (DISC)

R622 12 40 HS OO

(1) (2) (3) (4) (5)

(1) Type Number

(4) Reverse Recovery Time

(5) Lead Code

(2) Voltage Rating (x 100)

Code      Time (μsec)

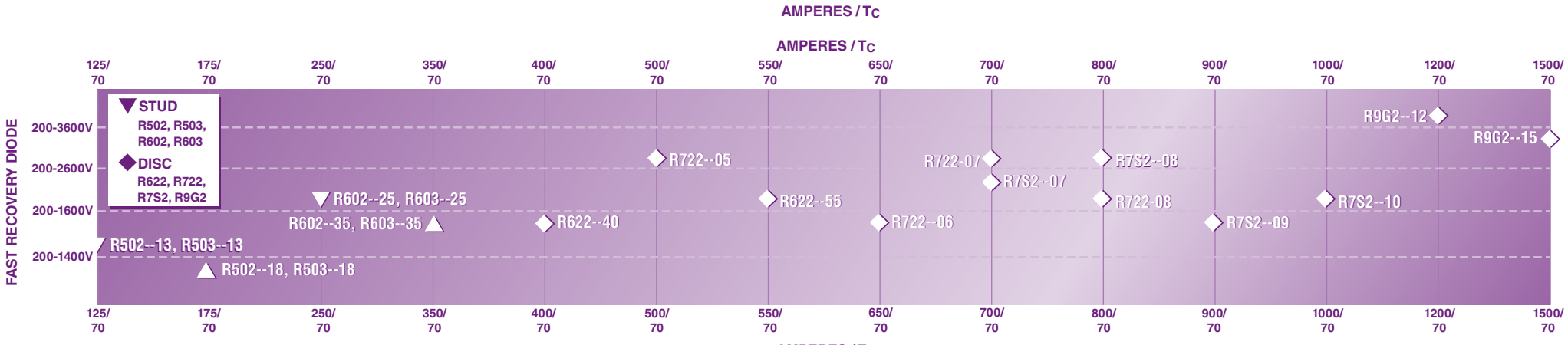
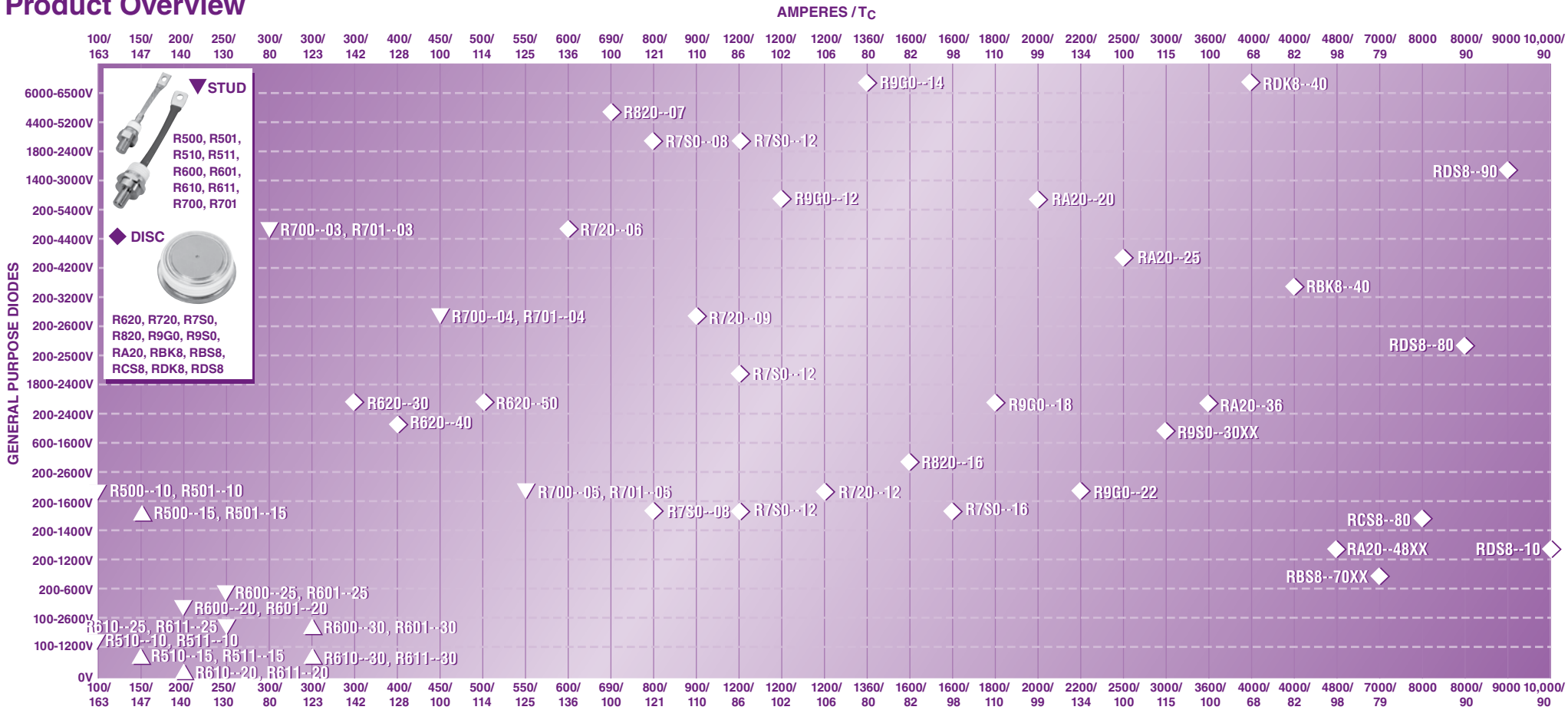
Code      Time (μsec)

(3) Current Rating:  
R5, R6 (x 10)  
R7, R8, R9, RA, RB (x 100)

XX	Standard Recovery
AS	5.0
BS	4.0
CS	3.0
DS	2.5
ES	2.0
FS	1.5
GS	1.25
HS	1.0
IS	5.5
JS	0.9
KS	0.8

LS	0.7
MS	0.6
NS	0.2
OS	4.5
PS	0.5
QS	0.4
RS	0.3
TS	3.5
US	2.75
VS	2.25
ZS	10.0

# Product Overview



## General Purpose Disc/Hockey Puk Diodes

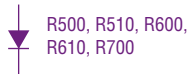
Type	V <sub>RRM</sub> Volts (V <sub>RMS</sub> = V <sub>RRM</sub> + 100V)	I <sub>F(av)</sub> /T <sub>C</sub> Amperes/°C (180° sin)	I <sub>F(RMS)</sub> Amperes (180° sin)	EUROPEAN		NORTH AMERICAN		V <sub>FM</sub> /I <sub>FM</sub> Volts/Amperes (T <sub>j(max)</sub> )	V <sub>T0</sub> Volts (T <sub>j(max)</sub> )	R <sub>T</sub> mΩ (T <sub>j(max)</sub> )	R <sub>th(j-c)</sub> °C/W	R <sub>th(c-s)</sub> °C/W	T <sub>j(max)</sub> °C	Outline Drawings	
				I <sub>FSM</sub> Amperes (10ms, T <sub>j(max)</sub> , No V <sub>RRM</sub> Reapplied)	I <sup>2</sup> t A <sup>2</sup> sec (10ms, T <sub>j(max)</sub> , No V <sub>RRM</sub> Reapplied)	I <sub>FSM</sub> Amperes (8.3ms, T <sub>j(max)</sub> , 100% V <sub>RRM</sub> Reapplied)	I <sup>2</sup> t A <sup>2</sup> sec (8.3ms, T <sub>j(max)</sub> , 100% V <sub>RRM</sub> Reapplied)							Number	Page
<b>Up to 1200V</b>															
RA20--48XX	200 – 1200	4800 / 98	7,535	73,500	27.0 x 10 <sup>6</sup>	49,000	10.0 x 10 <sup>6</sup>	0.71 / 1000	0.65128	0.06315	0.013	0.001	190	6	G-8
RBS8--70XX	200 – 600	7000 / 79	11,000	90,000	40.5 x 10 <sup>6</sup>	60,000	1.5 x 10 <sup>6</sup>	0.70 / 1000	0.64564	0.04421	0.0095	0.002	175	7	G-9
RDS8--10XX	200 – 1200	10,000 / 90	15,708	111,000	5.13 x 10 <sup>7</sup>	120,000	6.00 x 10 <sup>7</sup>	0.75 / 4000	0.642	2.28 x 10 <sup>-4</sup>	0.0075	0.0015	175	10	G-10
<b>Up to 2000V</b>															
R7S0--08XX	200 – 1600	800 / 121	1,250	12,750	812,813	8,500	301,000	1.95 / 2000	0.91169	0.51788	0.035	0.02	175	2	G-7
R720--12XX	200 – 1600	1200 / 106	1,885	18,750	1.7 x 10 <sup>6</sup>	12,500	650,700	0.91 / 1000	0.68	0.24	0.055	0.02	175 – 200	4	G-8
R7S0--12XX	200 – 1600	1200 / 86	1,875	13,500	911,250	9,000	337,500	1.25 / 2000	0.831	0.441	0.035	0.02	175	2	G-7
R7S0--16XX	200 – 1600	1600 / 98	2,500	21,000	2.2 x 10 <sup>6</sup>	14,000	816,700	1.2 / 2000	0.62955	0.2929	0.035	0.02	200	2	G-7
R9G0--22XX	200 – 1600	2200 / 134	3,455	45,000	10.1 x 10 <sup>6</sup>	30,000	3.7 x 10 <sup>6</sup>	0.97 / 2000	0.79109	0.08773	0.020	0.0075	150	5	G-8
RCS8--80XX	200 – 1400	8000	12,566	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	175	9	G-9
<b>Up to 2600V</b>															
R620--30XX00	200 – 2400	300 / 142	470	8,250	340,313	5,500	125,000	1.33 / 500	0.92	0.88	0.095	0.02	150 – 190	1	G-7
R620--40XX00	200 – 2400	400 / 128	625	9,000	405,000	6,000	150,000	1.25 / 500	0.89	0.74	0.095	0.02	150 – 190	1	G-7
R620--50XX00	200 – 2400	500 / 114	785	9,750	475,313	6,500	175,000	1.17 / 500	0.85	0.63	0.095	0.02	150 – 190	1	G-7
R7S0--08XX	1800 – 2400	800 / 121	1,250	12,750	812,813	8,500	301,000	1.95 / 2000	0.91169	0.51788	0.035	0.02	175	3	G-7
R720--09XX00	200 – 2600	900 / 110	1,415	12,750	812,813	8,500	301,000	1.26 / 1000	0.84	0.42	0.055	0.02	150 – 200	4	G-8
R7S0--12XX	1800 – 2400	1200 / 86	1,875	13,500	911,250	9,000	337,500	1.25 / 2000	0.38717	0.4301	0.035	0.02	175	3	G-7
R820--16XX00	200 – 2600	1600 / 82	2,513	12,950	6.99 x 10 <sup>5</sup>	14,000	8.17 x 10 <sup>5</sup>	1.06 / 1500	0.68	0.25	0.035	0.015	175	4	G-8
R9G0--18XX	200 – 2400	1800 / 110	2,825	32,250	5.2 x 10 <sup>6</sup>	21,500	1.9 x 10 <sup>6</sup>	1.25 / 2000	0.81366	0.2242	0.02	0.008	175	5	G-8
R9S0--30XX	600 – 1600	3000 / 115	4,710	45,000	10.1 x 10 <sup>6</sup>	30,000	3.7 x 10 <sup>6</sup>	1.10 / 1500	0.912	0.089	0.0145	0.006	175	5	G-8
RA20--36XX	200 – 2400	3600 / 100	5,650	60,000	18.0 x 10 <sup>6</sup>	40,000	6.67 x 10 <sup>6</sup>	0.79 / 1000	0.66324	0.1134	0.013	0.007	175	6	G-8
RDS8--80XX	200 – 2500	8000 / 90	12,566	150,000	3.57 x 10 <sup>7</sup>	100,000	4.17 x 10 <sup>7</sup>	0.82 / 4000	0.654	3.82 x 10 <sup>-2</sup>	0.007	0.001	175	10	G-10
<b>Up to 6500V</b>															
R720--06XX00	200 – 4400	600 / 136	945	10,500	551,250	7,000	204,000	1.54 / 1000	0.92	0.61	0.055	0.02	150 – 200	4	G-8
R820--07XX00	4400 – 5200	690 / 100	1,084	6,938	2.41 x 10 <sup>5</sup>	7,500	2.34 x 10 <sup>5</sup>	1.94 / 1500	1.0	0.62	0.035	0.015	150	4	G-8
R9G0--12XX	200 – 5400	1200 / 102	1,880	24,000	2.8 x 10 <sup>6</sup>	16,000	1.1 x 10 <sup>6</sup>	1.4 / 1000	1.07197	0.32357	0.020	0.008	150	5	G-8
R9G0--14XX	6000 – 6500	1360 / 80	2,136	15,250	1.6 x 10 <sup>6</sup>	12,500	6.51 x 10 <sup>6</sup>	1.61 / 1500	0.793	0.521	0.20	0.0006	150	5	G-8
RA20--20XX	200 – 5400	2000 / 99	3,140	36,000	6.4 x 10 <sup>6</sup>	24,000	2.4 x 10 <sup>6</sup>	1.39 / 2000	0.96347	0.20721	0.013	0.007	150	6	G-8
RA20--25XX	200 – 4200	2500 / 100	3,920	42,000	8.8 x 10 <sup>6</sup>	28,000	3.2 x 10 <sup>6</sup>	0.87 / 1000	0.74116	0.1320	0.013	0.001	150	6	G-8
RBK8--40XX	200 – 3200	4000 / 82	6,280	75,000	28.1 x 10 <sup>6</sup>	50,000	10.4 x 10 <sup>6</sup>	0.78 / 1000	0.69989	0.09373	0.0115	0.002	160	8	G-9
RDk8--40XX	6000 – 6500	4000 / 68	6,283	55,000	1.28 x 10 <sup>7</sup>	60,000	1.50 x 10 <sup>7</sup>	1.65 / 4000	1.13	0.117 x 10 <sup>-4</sup>	0.0075	0.001	150	11	G-10
RDS8--90XX	1400 – 3000	9000	14,137	TBD	TBD	TBD	TBD	TBD	TBD	TBD	0.0075	0.0015	175	10	G-10

Optional Accessories: See Page E-8 for Clamps.

# General Purpose Stud Diodes

Type	V <sub>RRM</sub> Volts (V <sub>RMS</sub> = V <sub>RRM</sub> + 100V)	I <sub>F(av)</sub> /T <sub>C</sub> Amperes/°C (180° sin)	I <sub>F(RMS)</sub> Amperes (180° sin)	EUROPEAN		NORTH AMERICAN		V <sub>FM</sub> /I <sub>FM</sub> Volts/Amperes (T <sub>j(max)</sub> )	V <sub>T0</sub> Volts (T <sub>j(max)</sub> )	R <sub>T</sub> mΩ (T <sub>j(max)</sub> )	R <sub>th(j-c)</sub> °C/W	R <sub>th(c-s)</sub> °C/W	T <sub>j(max)</sub> °C	Outline Drawings	
				I <sub>FSM</sub> Amperes (10ms, T <sub>j(max)</sub> ; No V <sub>RRM</sub> Reapplied)	I <sup>2</sup> t A <sup>2</sup> sec (10ms, T <sub>j(max)</sub> ; No V <sub>RRM</sub> Reapplied)	I <sub>FSM</sub> Amperes (8.3ms, T <sub>j(max)</sub> ; 100% V <sub>RRM</sub> Reapplied)	I <sup>2</sup> t A <sup>2</sup> sec (8.3ms, T <sub>j(max)</sub> ; 100% V <sub>RRM</sub> Reapplied)							Number	Page
<b>Up to 1200V</b>															
R510--10XXWA, R511--10XXWA	100 – 1200	100 / 163	160	3,450	59,513	2,300	22,000	1.0 / 80	0.80	1.99	0.28	0.20	200	13	G-11
R510--15XXWA, R511--15XXWA	100 – 1200	150 / 147	236	4,500	101,250	3,000	37,500	1.0 / 100	0.85	1.08	0.28	0.20	200	13	G-11
R610--20XXYZ, R611--20XXYZ	100 – 1200	200 / 140	315	8,250	340,313	5,500	125,000	1.32 / 500	0.84	0.94	0.18	0.10	190	15	G-11
R610--25XXYZ, R611--25XXYZ	100 – 1200	250 / 130	400	9,000	405,000	6,000	150,000	1.24 / 500	0.88	0.72	0.18	0.10	190	15	G-11
R610--30XXYZ, R611--30XXYZ	100 – 1200	300 / 123	470	9,750	475,313	6,500	175,000	1.17 / 500	0.92	0.53	0.18	0.10	190	15	G-11
<b>Up to 1600V</b>															
R500--10XXWA, R501--10XXWA	200 – 1600	100 / 163	160	3,450	59,513	2,300	22,000	1.0 / 80	0.80	1.99	0.28	0.20	200	12	G-10
R500--15XXWA, R501--15XXWA	200 – 1600	150 / 147	236	4,500	101,250	3,000	37,500	1.0 / 100	0.85	1.08	0.28	0.20	200	12	G-10
R700--05XXUA R701--05XXUA	200 – 1600	550 / 125	865	15,000	1.1 x 10 <sup>6</sup>	10,000	416,500	0.89 / 1000	0.65	0.25	0.12	0.04	200	16	G-12
<b>Up to 2600V</b>															
R600--20XXYA, R601--20XXYA	100 – 2600	200 / 140	315	8,250	340,313	5,500	125,000	1.32 / 500	0.84	0.94	0.18	0.10	150 – 190	14	G-11
R600--25XXYA, R601--25XXYA	100 – 2600	250 / 130	400	9,000	405,000	6,000	150,000	1.24 / 500	0.88	0.72	0.18	0.10	150 – 190	14	G-11
R600--30XXYA, R601--30XXYA	100 – 2600	300 / 123	470	9,750	475,313	6,500	175,000	1.17 / 500	0.92	0.53	0.18	0.10	150 – 190	14	G-11
R700--04XXUA R701--04XXUA	200 – 2600	450 / 100	700	12,750	812,813	8,500	266,000	1.25 / 1000	0.83	0.40	0.12	0.04	200	16	G-12
<b>Up to 4500V</b>															
R700--03XXUA, R701--03XXUA	200 – 4400	300 / 80	470	10,500	551,250	7,000	204,000	1.48 / 1000	0.92	0.55	0.12	0.04	200	16	G-12

Forward Polarity



Reverse Polarity



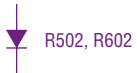
## Fast Recovery Disc/Hockey Puk Diodes

Type	$V_{RRM}$ Volts ( $V_{RMS} = V_{RRM} + 100V$ )	$I_{F(av)/TC}$ Amperes/°C (180° sin)	$I_{F(RMS)}$ Amperes (180° sin)	EUROPEAN		NORTH AMERICAN		$V_{FM}/I_{FM}$ Volts/Amperes ( $T_j(max)$ )	$V_{T0}$ Volts ( $T_j(max)$ )	$R_T$ mΩ ( $T_j(max)$ )	$R_{th(j-c)}$ °C/W	$R_{th(c-s)}$ °C/W	$T_j(max)$ °C	Outline Drawings	
				$I_{FSM}$ Amperes (10ms, $T_j(max)$ , No $V_{RRM}$ Reapplied)	$i^2t$ A <sup>2</sup> sec (10ms, $T_j(max)$ , No $V_{RRM}$ Reapplied)	$I_{FSM}$ Amperes (8.3ms, $T_j(max)$ , No $V_{RRM}$ Reapplied)	$i^2t$ A <sup>2</sup> sec (8.3ms, $T_j(max)$ , No $V_{RRM}$ Reapplied)							Number	Page
<b>Up to 1600V</b>															
R622--40°S00	200 – 1600	400 / 70	625	6,750	227,813	4,500	85,000	1.40 / 200	1.23	0.84	0.095	0.025	150	1	G-7
R622--55°S00	200 – 1600	550 / 70	860	9,000	405,000	6,000	150,000	1.29 / 700	0.97	0.44	0.095	0.025	150	1	G-7
R722--06°S00	200 – 1600	650 / 70	1000	11,250	632,813	7,500	234,000	1.51 / 400	1.12	0.67	0.055	0.020	150	4	G-8
R722--08°S00	200 – 1600	800 / 70	1,250	16,500	1.3 x 10 <sup>6</sup>	11,000	504,000	1.22 / 400	1.08	0.36	0.055	0.020	150	4	G-8
R7S2--09°S00	200 – 1600	900 / 70	1,440	11,250	632,813	7,500	234,000	1.55 / 500	1.32	0.44	0.035	0.025	150	2	G-7
R7S2--10°S00	200 – 1600	1000 / 70	1,550	16,500	1,361,250	11,000	504,000	1.24 / 500	1.05	0.37	0.035	0.025	150	2	G-7
<b>Up to 2600V</b>															
R722--05°S00	200 – 2600	500 / 70	785	9,750	475,313	6,500	176,000	1.52 / 500	0.99	0.86	0.055	0.020	150	4	G-8
R722--07°S00	200 – 2600	700 / 70	1100	14,250	1.01 x 10 <sup>6</sup>	9,500	376,000	1.0 / 300	0.87	0.57	0.055	0.020	150	4	G-8
R7S2--07°S00	200 – 2600	700 / 70	1100	9,750	475,313	6,500	176,000	1.42 / 400	1.10	0.72	0.035	0.025	150	2	G-7
R7S2--08°S00	200 – 2600	800 / 70	1,250	14,250	1.01 x 10 <sup>6</sup>	9,500	376,000	1.17 / 500	0.86	0.55	0.035	0.025	150	2	G-7
<b>Up to 3600V</b>															
R9G2--12°S00	200 – 3600	1200 / 70	1,900	21,000	2.2 x 10 <sup>6</sup>	14,000	820,000	1.95 / 1000	1.18	0.62	0.018	0.008	150	5	G-8
R9G2--15°S00	200 – 3600	1500 / 70	2,350	27,000	3.6 x 10 <sup>6</sup>	18,000	1.35 x 10 <sup>6</sup>	1.5 / 1000	1.04	0.39	0.018	0.008	150	5	G-8

## Fast Recovery Stud Diodes

Type	$V_{RRM}$ Volts ( $V_{RMS} = V_{RRM} + 100V$ )	$I_{F(av)/TC}$ Amperes/°C (180° sin)	$I_{F(RMS)}$ Amperes (180° sin)	EUROPEAN		NORTH AMERICAN		$V_{FM}/I_{FM}$ Volts/Amperes ( $T_j(max)$ )	$V_{T0}$ Volts ( $T_j(max)$ )	$R_T$ mΩ ( $T_j(max)$ )	$R_{th(j-c)}$ °C/W	$R_{th(c-s)}$ °C/W	$T_j(max)$ °C	Outline Drawings	
				$I_{FSM}$ Amperes (10ms, $T_j(max)$ , No $V_{RRM}$ Reapplied)	$i^2t$ A <sup>2</sup> sec (10ms, $T_j(max)$ , No $V_{RRM}$ Reapplied)	$I_{FSM}$ Amperes (8.3ms, $T_j(max)$ , No $V_{RRM}$ Reapplied)	$i^2t$ A <sup>2</sup> sec (8.3ms, $T_j(max)$ , No $V_{RRM}$ Reapplied)							Number	Page
<b>Up to 1600V</b>															
R502--13°SWA, R503--13°SWA	200 – 1400	125 / 70	195	3,750	70,313	2,500	26,000	1.84 / 200	1.17	3.09	0.28	0.12	150	12	G-10
R502--18°SWA, R503--18°SWA	200 – 1400	175 / 70	275	5,250	137,813	3,500	51,000	1.48 / 300	0.85	1.57	0.28	0.12	150	12	G-10
R602--25°SYA, R603--25°SYA	200 – 1600	250 / 70	400	6,750	227,813	4,500	85,000	1.39 / 200	1.20	0.86	0.17	0.10	150	14	G-11
R602--35°SYA, R603--35°SYA	200 – 1600	350 / 70	550	9,000	405,000	6,000	150,000	1.18 / 400	0.95	0.51	0.17	0.10	150	14	G-11

Forward Polarity



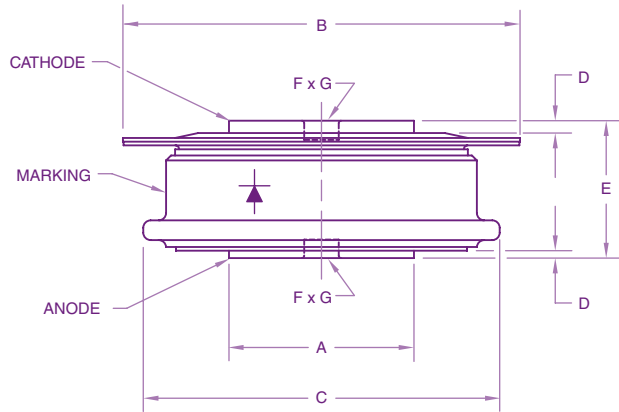
R502, R602

Reverse Polarity



R503, R603

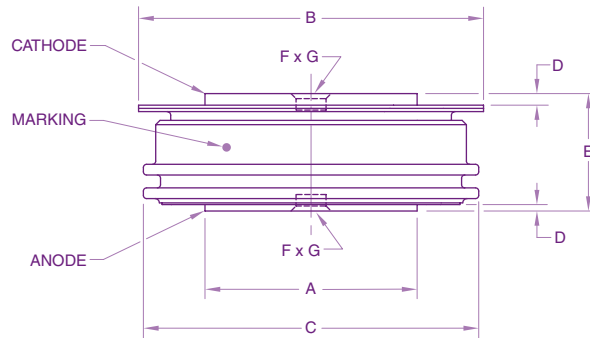
# 1 R620, R622



Dim.	Inches	Millimeters
A	0.752 Dia.	19.1 Dia.
B	1.658 Dia.	42.1 Dia.
C	1.461 Dia.	37.1 Dia.
D	0.059 Min.	1.5 Min.

Dim.	Inches	Millimeters
E	0.567 Max.	14.4 Max.
F	0.142 Dia.	3.6 Dia.
G	0.0787 Deep	2.0 Deep

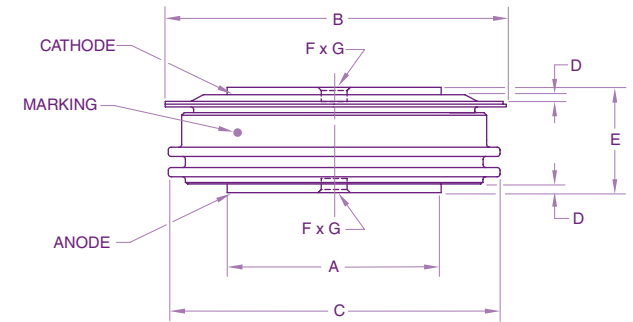
# 2 R7S0 (≤1600V), R7S2



Dim.	Inches	Millimeters
A	0.996 Dia.	25.3 Dia.
B	1.6496 Dia.	41.9 Dia.
C	1.5866 Dia.	40.3 Dia.
D	0.028 Min.	0.7 Min.

Dim.	Inches	Millimeters
E	0.606 Max.	15.4 Max.
F	0.142 Dia.	3.6 Dia.
G	0.0787 Deep	2.0 Deep

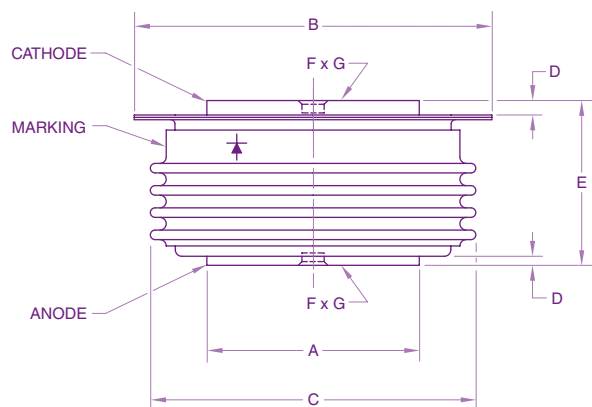
# 3 R7S0 (≥1800V)



Dim.	Inches	Millimeters
A	1.17 Dia.	29.7 Dia.
B	1.90 Dia.	48.3 Dia.
C	1.85 Dia.	47.0 Dia.
D	0.028 Min.	0.7 Min.

Dim.	Inches	Millimeters
E	0.606 Max.	15.4 Max.
F	0.142 Dia.	3.6 Dia.
G	0.0787 Deep	2.0 Deep

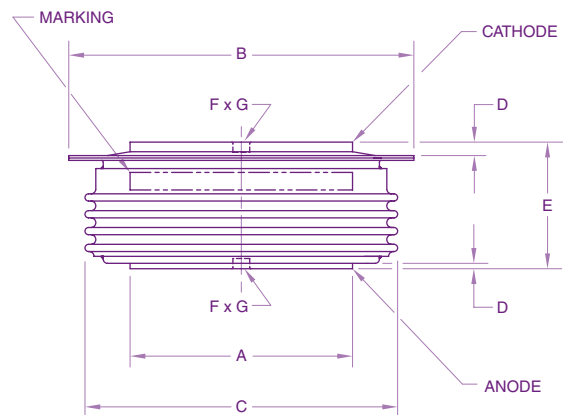
## 4 R720, R722, R820



Dim.	Inches	Millimeters
A	1.343 Dia.	34.1 Dia.
B	2.299 Dia.	58.4 Dia.
C	2.091 Dia.	53.1 Dia.
D	0.028 Min.	0.7 Min.

Dim.	Inches	Millimeters
E	1.059 Max.	26.9 Max.
F	0.142 Dia.	3.6 Dia.
G	0.0787 Deep	2.0 Deep

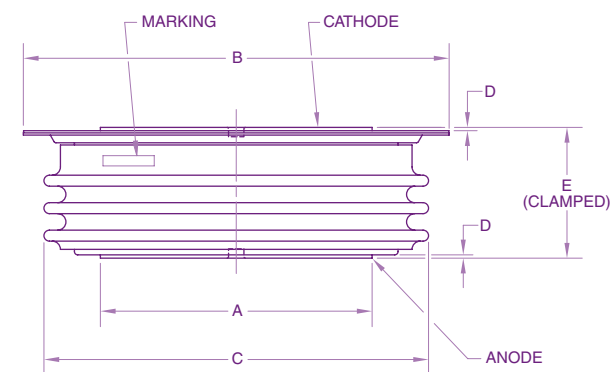
## 5 R9G0, R9G2, R9S0



Dim.	Inches	Millimeters
A	1.858 Dia.	47.2 Dia.
B	2.8898 Dia.	73.4 Dia.
C	2.6496 Dia.	67.3 Dia.
D	0.028 Min.	0.7 Min.

Dim.	Inches	Millimeters
E	1.0787 Max.	27.4 Max.
F	0.142 Dia.	3.6 Dia.
G	0.0787 Deep	2.0 Deep

## 6 RA20

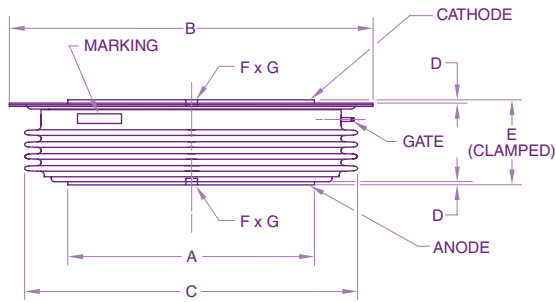


Dim.	Inches	Millimeters
A	2.469 Dia.	62.7 Max.
B	3.909 Dia.	99.3 Max.
C	3.543 Dia.	90.0 Max.

Dim.	Inches	Millimeters
D	0.028 Min.	0.7 Min.
E	1.339 Max.	34.0 Max.



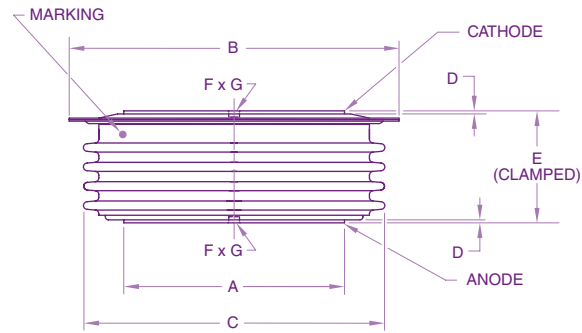
# 7 RBS8



Dim.	Inches	Millimeters
A	2.88 Dia.	73.2 Dia.
B	4.36 Dia.	110.7 Dia.
C	3.95 Dia.	100.3 Dia.
D	0.03 Min.	0.76 Min.

Dim.	Inches	Millimeters
E	1.05 Max.	26.67 Max.
F	0.14 Dia.	3.56 Dia.
G	0.08 Deep	2.03 Deep

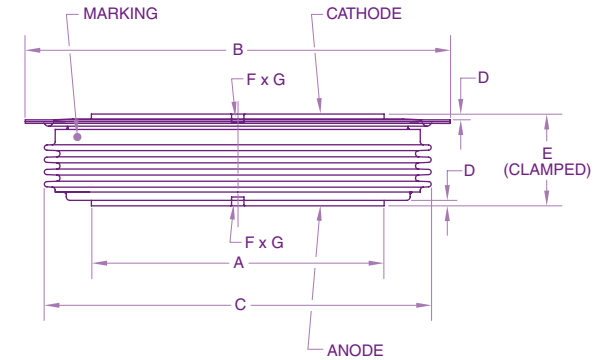
# 8 RBK8



Dim.	Inches	Millimeters
A	2.882 Dia.	73.2 Dia.
B	4.36 Dia.	110.7 Dia.
C	3.961 Dia.	100.6 Dia.
D	0.028 Min.	0.7 Min.

Dim.	Inches	Millimeters
E	1.5 Max.	38.1 Max.
F	0.142 Dia.	3.6 Dia.
G	0.0787 Deep	2.0 Deep

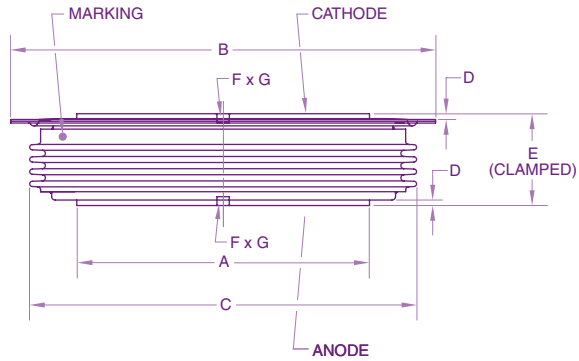
# 9 RCS8



Dim.	Inches	Millimeters
A	3.311 Dia.	84.1 Dia.
B	4.889 Dia.	124.2 Dia.
C	4.370 Dia.	111.0 Dia.
D	0.028 Min.	0.7 Min.

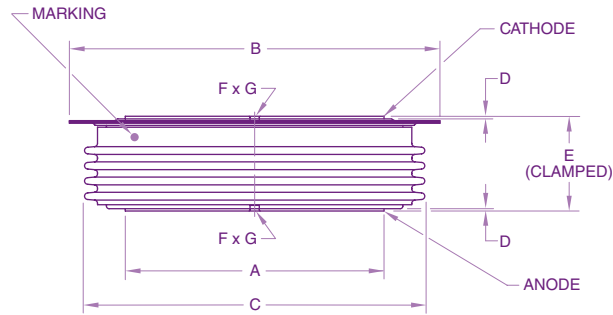
Dim.	Inches	Millimeters
E	1.059 Max.	26.9 Max.
F	0.142 Dia.	3.6 Dia.
G	0.0787 Deep	2.0 Deep

## 10 RDS8



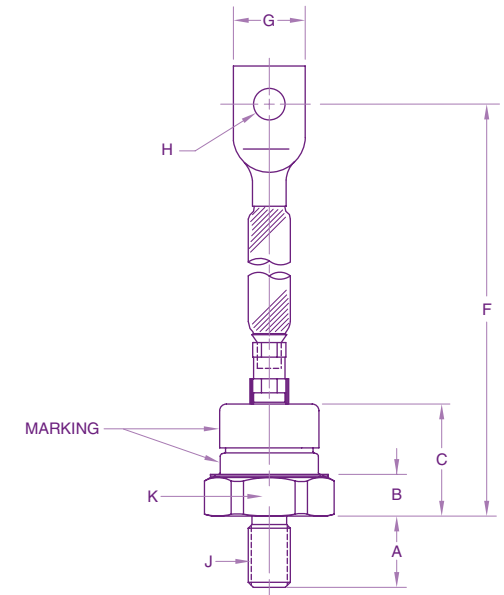
Dim.	Inches	Millimeters	Dim.	Inches	Millimeters
A	3.913 Dia.	99.4 Dia.	E	1.059 Max.	26.9 Max.
B	5.661 Dia.	143.8 Dia.	F	0.142 Dia.	3.6 Dia.
C	5.181 Dia.	131.6 Dia.	G	0.0787 Deep	2.0 Deep
D	0.028 Min.	0.7 Min.			

## 11 RDK8



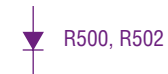
Dim.	Inches	Millimeters	Dim.	Inches	Millimeters
A	3.913 Dia.	99.4 Dia.	E	1.5 Max.	38.1 Max.
B	5.661 Dia.	143.8 Dia.	F	0.142 Dia.	3.6 Dia.
C	5.181 Dia.	131.6 Dia.	G	0.0787 Deep	2.0 Deep
D	0.028 Min.	0.7 Min.			

## 12 R500, R501, R502, R503



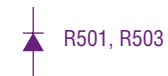
Dim.	Inches	Millimeters	Dim.	Inches	Millimeters
A	0.626	15.9	H	0.2795 Dia.	7.1 Dia.
B	0.358	9.1	J	0.375-24 UNF-2A Thread	
C	0.980	24.9	K	1.059 Max.	26.9 Max.
F	4.606 Max.	117.0 Max.		(Across Flats)	
G	0.654 Max.	16.6 Max.			

Forward Polarity



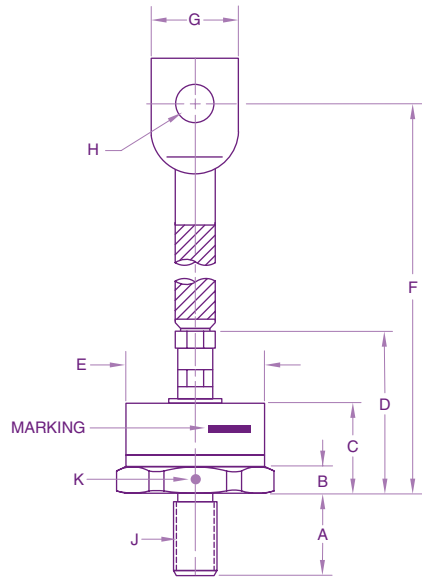
R500, R502

Reverse Polarity



R501, R503

# 13 R510, R511



Dim.	Inches	Millimeters
A	0.63	16.0
B	0.20	5.1
C	0.66	16.8
D	1.27	32.2
E	1.05 Dia.	26.7 Dia.
F	4.14 Max.	105.0 Max.

Dim.	Inches	Millimeters
G	0.63 Max.	16.0 Max.
H	0.281 Dia.	7.14 Dia.
J	0.375-24 UNF-2A Thread	
K	1.060 Max.	26.92 Max.

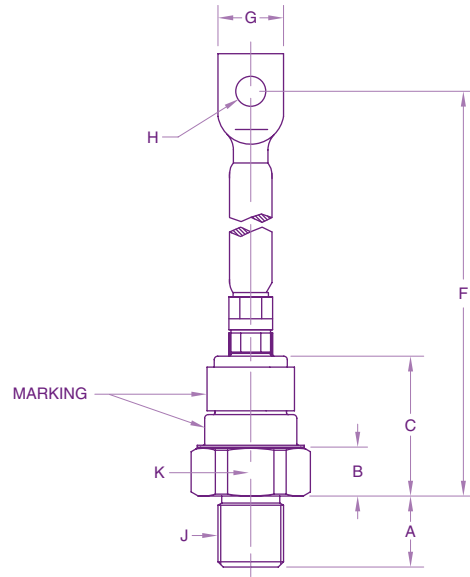
Forward Polarity



Reverse Polarity

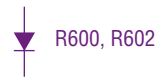


# 14 R600, R601, R602, R603

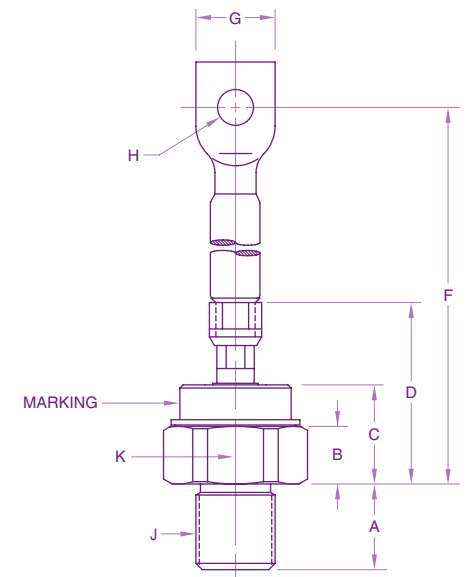


Dim.	Inches	Millimeters
A	0.811	20.6
B	0.559	14.2
C	1.598	40.6
F	5.563 Max.	141.3 Max.
G	0.752 Max.	19.1 Max.

Forward Polarity



# 15 R610, R611



Dim.	Inches	Millimeters
A	0.811	20.6
B	0.559	14.2
C	0.929	23.6
D	1.740	44.2
F	5.693 Max.	144.6 Max.
G	0.752 Max.	19.1 Max.

Dim.	Inches	Millimeters
H	0.3386 Dia.	8.6 Dia.
J	0.750-16 UNF-2A Thread	
K	1.248 Max.	31.7 Max.

Forward Polarity

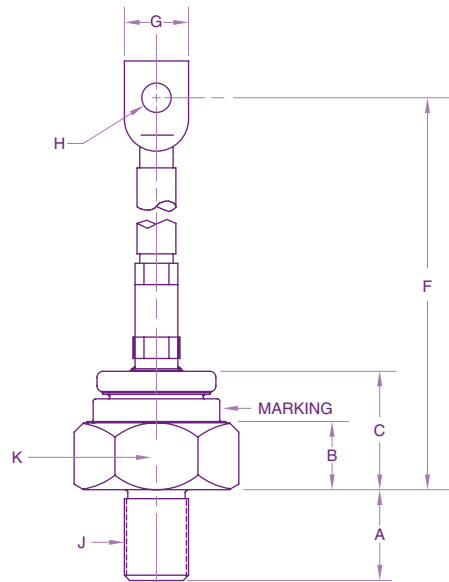


Reverse Polarity



# 16

R700, R701



Dim.	Inches	Millimeters	Dim.	Inches	Millimeters
A	1.059	26.9	H	0.343 Dia.	8.7 Dia.
B	0.7795	19.8	J	0.750-16 UNF-2A Thread	
C	1.409	35.8	K	1.752 Max.	44.5 Max.
F	9.784 Max.	248.5 Max.		(Across Flats)	
G	0.752 Max.	19.1 Max.			

Forward Polarity



R700