

# **SR520 THRU SR5250**

5.0 AMP. Schottky Barrier Rectifiers

#### **Features**

•Plastic package has Underwriters Laboratory Flammability Classification 94V-0 utilizing Flame Retardant Epoxy Molding Compound.

- · Guard ring for overvoltage protection
- High current capability, low forward voltage drop
- · Low power loss, high efficiency
- · High surge capability

### **Mechanical Data**

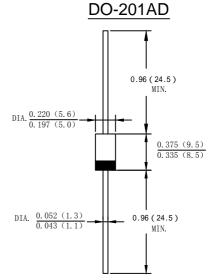
· Case: Molded plastic DO-201AD

 Terminals: Plated leads solderable per MIL-STD-202, Method 208 guaranteed

· Polarity: Color band dentes cathode end

Mounting Position: AnyMaking: Type Number

· Lead Free: For RoHS/Lead Free Version



Dimensions in inches and (millimeters)

### **Maximum Ratings and Electrical Characteristics**

Rating at 25°C ambient temperature unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load

For capacitive load derate current by 20%

SYMBOL	SR 520	SR 530	SR 540	SR 545	SR 550	SR 560	SR 580	SR 5100	SR 5150	SR 5200	SR 5250	Unit
VRRM	20	30	40	45	50	60	80	100	150	200	250	V
V <sub>RMS</sub>	14	21	28	31.5	35	42	56	70	105	140	175	V
VDC	20	30	40	45	50	60	80	100	150	200	250	V
IF(AV)	5.0										Α	
Ігѕм	120										А	
l <sup>2</sup> t	59.76										A <sup>2</sup> s	
V <sub>FM</sub>	0.55				0	.7	0	.85	0.	92	0.95	V
1_	0.2 0.05										m ^	
IR	10.0 5.0									mA		
CJ	500				350							pF
RөJA	25										°C/W	
TJ	-55 to + 150										$^{\circ}$	
Тѕтс	-55 to + 150										$^{\circ}$	
	VRRM VRMS VDC IF(AV) IFSM I²t VFM IR CJ RθJA TJ	SYMBOL   520     VRM	SYMBOL 520 530  VRRM 20 30  VRMS 14 21  VDC 20 30  IF(AV)  IFSM  1²t  VFM 0.55  IR  CJ 50  RθJA  TJ	SYMBOL 520 530 540  VRRM 20 30 40  VRMS 14 21 28  VDC 20 30 40  IF(AV)  IFSM 0.55  IR  CJ 500  Reja  TJ	SYMBOL 520 530 540 545  VRRM 20 30 40 45  VRMS 14 21 28 31.5  VDC 20 30 40 45  IF(AV)  IFSM 0.55  IR 0.2  TJ 500	SYMBOL       520       530       540       545       550         VRRM       20       30       40       45       50         VRMS       14       21       28       31.5       35         VDC       20       30       40       45       50         IF(AV)         IFSM         IPSM       0.25       0.2         IR       10.0       0.2         CJ       500       500         RegJA       TJ       -	SYMBOL         520         530         540         545         550         560           VRMM         20         30         40         45         50         60           VRMS         14         21         28         31.5         35         42           VDC         20         30         40         45         50         60           IF(AV)         5.0         5.0         5.0         5.0           IFSM         120         59.76         7.0         7.0           VFM         0.55         0.7         7.0         7.0         7.0           IR         10.0         7.0<	SYMBOL       520       530       540       545       550       560       580         VRMM       20       30       40       45       50       60       80         VRMS       14       21       28       31.5       35       42       56         VDC       20       30       40       45       50       60       80         IF(AV)       55.0       5.0       5.0       50       60       80         IFSM       120       59.76       70       <	SYMBOL         520         530         540         545         550         560         580         5100           VRRM         20         30         40         45         50         60         80         100           VRMS         14         21         28         31.5         35         42         56         70           VDC         20         30         40         45         50         60         80         100           IF(AV)         5.0           IFSM         120           120           120           120           120           120           120           120           120           120           120           120           120           14         20         25           10.0         350           10.0         25           10.0         25           10.0         25 <td< td=""><td>  SYMBOL   520   530   540   545   550   560   580   5100   5150     VRRM   20   30   40   45   50   60   80   100   150     VRMS   14   21   28   31.5   35   42   56   70   105     VDC   20   30   40   45   50   60   80   100   150     IF(AV)</td><td>SYMBOL       520       530       540       545       550       560       580       5100       5150       5200         VRRM       20       30       40       45       50       60       80       100       150       200         VRMS       14       21       28       31.5       35       42       56       70       105       140         VDC       20       30       40       45       50       60       80       100       150       200         IF(AV)       5.0         IFSM       120         120         120         120         IR       0.7       0.85       0.92         10.0       5.0         CJ       500       350         RegJA       25         TJ       -55 to + 150</td><td>SYMBOL         520         530         540         545         550         560         580         5100         5150         5200         5250           VRRM         20         30         40         45         50         60         80         100         150         200         250           VRMS         14         21         28         31.5         35         42         56         70         105         140         175           VDC         20         30         40         45         50         60         80         100         150         200         250           IF(AV)         5.0           IFSM         120         59.76           VFM         0.55         0.2         0.05         0.05         0.05         0.092         0.95           IR         10.0         5.0         5.0         5.0         0.05</td></td<>	SYMBOL   520   530   540   545   550   560   580   5100   5150     VRRM   20   30   40   45   50   60   80   100   150     VRMS   14   21   28   31.5   35   42   56   70   105     VDC   20   30   40   45   50   60   80   100   150     IF(AV)	SYMBOL       520       530       540       545       550       560       580       5100       5150       5200         VRRM       20       30       40       45       50       60       80       100       150       200         VRMS       14       21       28       31.5       35       42       56       70       105       140         VDC       20       30       40       45       50       60       80       100       150       200         IF(AV)       5.0         IFSM       120         120         120         120         IR       0.7       0.85       0.92         10.0       5.0         CJ       500       350         RegJA       25         TJ       -55 to + 150	SYMBOL         520         530         540         545         550         560         580         5100         5150         5200         5250           VRRM         20         30         40         45         50         60         80         100         150         200         250           VRMS         14         21         28         31.5         35         42         56         70         105         140         175           VDC         20         30         40         45         50         60         80         100         150         200         250           IF(AV)         5.0           IFSM         120         59.76           VFM         0.55         0.2         0.05         0.05         0.05         0.092         0.95           IR         10.0         5.0         5.0         5.0         0.05

Note: 1. Leads maintained at ambient temperature at a distance of 9.5mm from the case

2. Measured at 1.0 MHz and Applied reverse Voltage of 4.0V D.C



# **SR520 THRU SRB5250**

FIG. 1 - FORWARD CURRENT DERATING CURVE

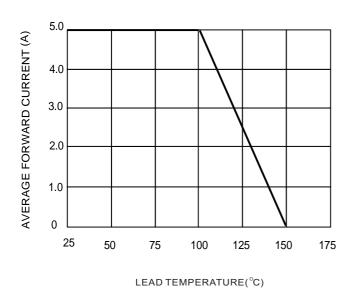


FIG.2-TYPICAL FORWARD CHARACTERISTICS

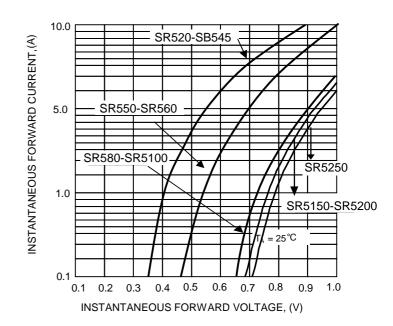


FIG. 3 MAXIMUM NON-REPETITIVE SURGE CURRENT

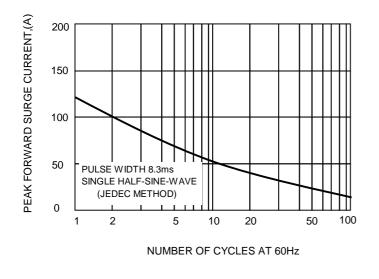
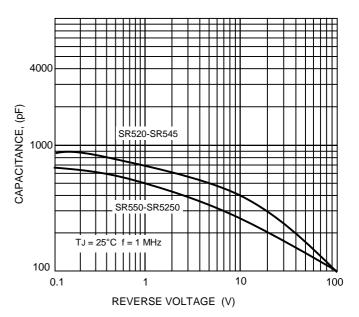


FIG.4 TYPICAL JUNCTION CAPACITANCE





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