

## SR520 THRU SR5200 SCHOTTKY BARRIER RECTIFIER



**VOLTAGE**

**20 THRU 200Volts**

**CURRENT**

**5.0 Ampers**

**DO-27/DO-201AD**

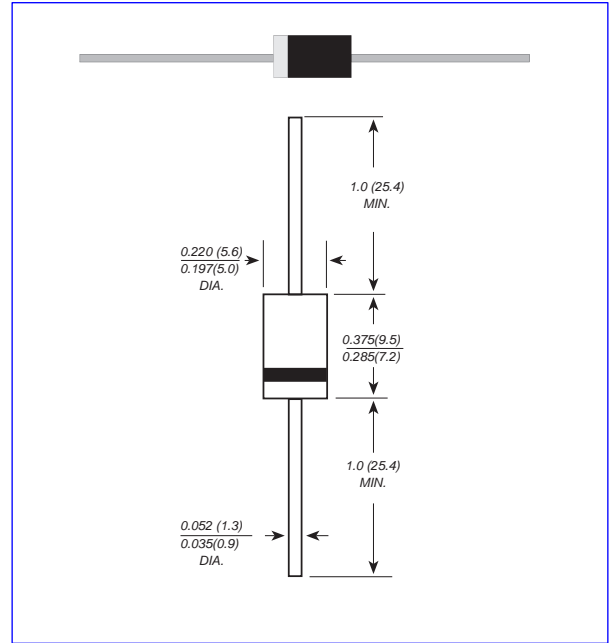
Unit:(mm)

### FEATURES

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Metal silicon junction, majority carrier conduction
- ◆ Low power loss, high efficiency
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed:  
250°C/10 seconds, 0.375" (9.5mm) lead length,  
5 lbs. (2.3kg) tension

### MECHANICAL DATA

- Case:** JEDEC DO-27 molded plastic body  
**Terminals:** Plated axial leads, solderable per MIL-STD-750, Method 2026  
**Polarity:** Color band denotes cathode end  
**Mounting Position:** Any  
**Weight:** 0.04 ounce, 1.10 grams



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (TA=25°C (UNLESS OTHERWISE NOTED))

Single phase half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

MDD Catalog Number	SYMBOLS	SR 520	SR 530	SR 540	SR 550	SR 560	SR 570	SR 580	SR 590	SR 5100	SR 5150	SR 5200	UNITS	
Maximum repetitive peak reverse voltage	$V_{RRM}$	20	30	40	50	60	70	80	90	100	150	200	VOLTS	
Maximum RMS voltage	$V_{RMS}$	14	21	28	35	42	49	56	63	70	105	140	VOLTS	
Maximum DC blocking voltage	$V_{DC}$	20	30	40	50	60	70	80	90	100	150	200	VOLTS	
Maximum average forward rectified current 0.375" (9.5mm) lead length (see fig. 1)	$I_{(AV)}$	5.0											Amps	
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	150.0											Amps	
Maximum instantaneous forward voltage at 5.0A	$V_F$	0.55		0.70		0.85			0.95			Volts		
Maximum DC reverse current at rated DC blocking voltage $T_A=25^\circ\text{C}$ $T_A=100^\circ\text{C}$	$I_R$	0.5						0.2			mA			
		20.0			10.0			2.0						
Typical junction capacitance (NOTE 1)	$C_J$	500				400								pF
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	25.0											$^\circ\text{C}/\text{W}$	
Operating junction temperature range	$T_J$	-65 to +125					-65 to +150						$^\circ\text{C}$	
Storage temperature range	$T_{STG}$	-65 to +150											$^\circ\text{C}$	

**Note:** 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

2. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

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**RATING AND CHARACTERISTIC CURVES**

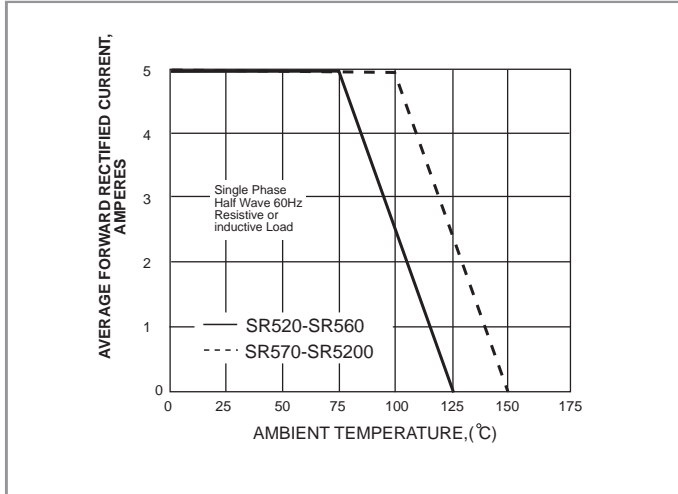


Fig-FORWARD CURRENT DE-RATING CURVE

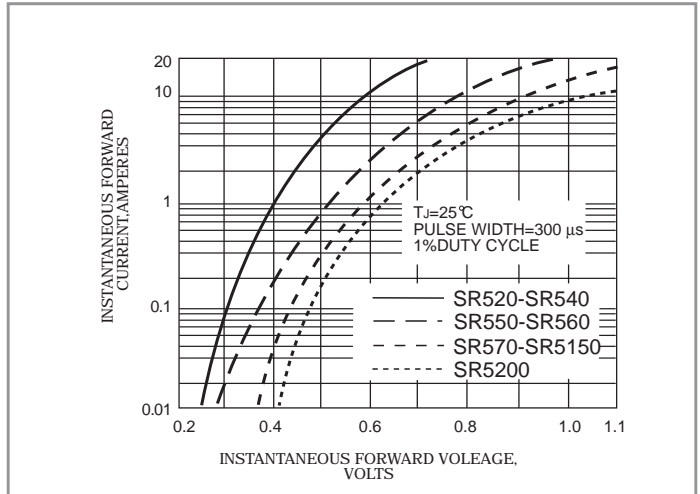


Fig.2-TYPICAL INSTANTANEOUS FORWARD

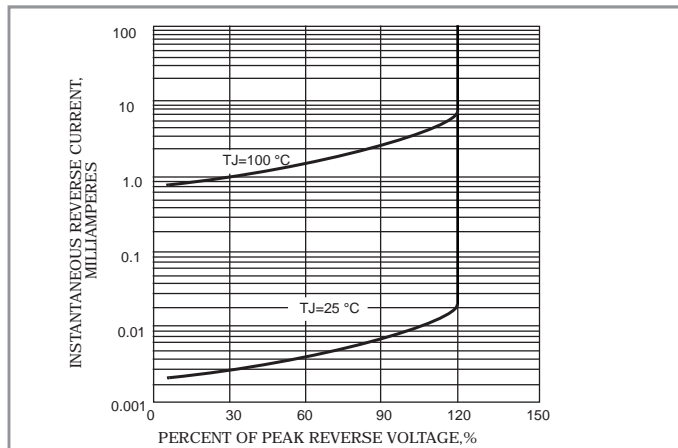


Fig.3- TYPICAL REVERSE CHARACTERISTICS

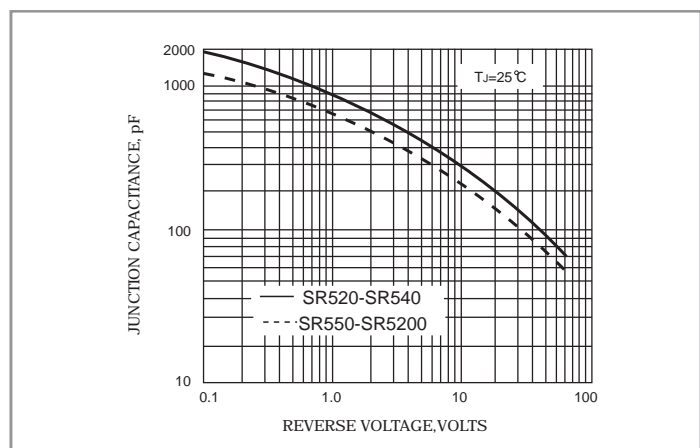


Fig.4- TYPICAL JUNCTION CAPACITANCE

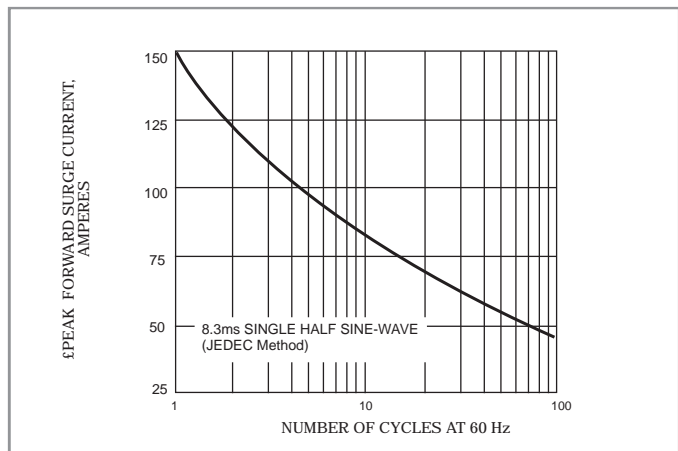


Fig.5- MAXIMUM NON - REPETITIVE SURGE CURRENT

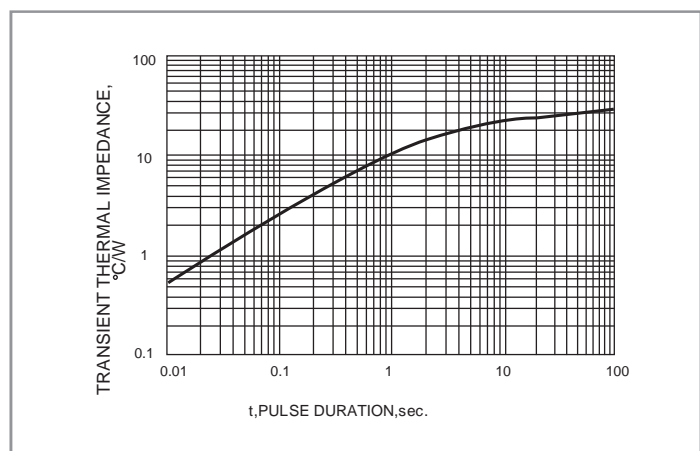


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



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**ORDER INFORMATION**

- Packing information  
T/R - 1.25K per BOX