

# SCHOTTKY BARRIER RECTIFIER

## SR52 THRU SR520 20 to 200 V 5.0A

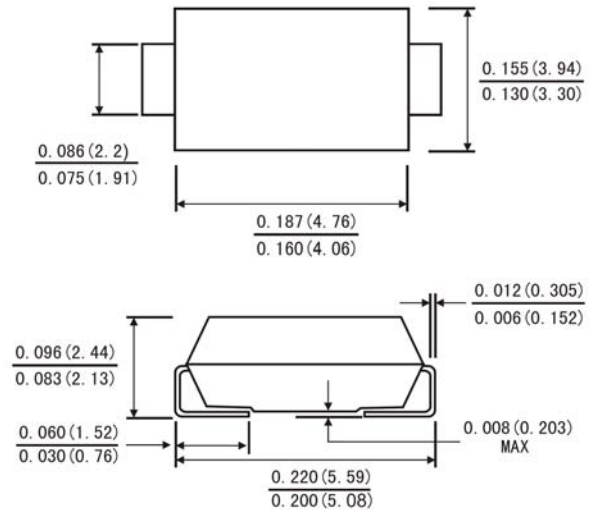
### Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- For surface mount applications
- Low power loss ,high efficiency
- High current capability ,Low forward voltage drop
- Low profile package
- built-in strain relief ,ideal for automated placement
- For use in low voltage ,high frequency inverters, free wheeling ,and polarity protection applications
- High temperature soldering guaranteed:  
250°C/10 seconds at terminals

### Mechanical Data

- Case: JEDEC SMB(DO-214AA) molded plastic body
- Terminals: solder plated ,solderable per MIL-STD-750, method 2026
- Polarity: color band denotes cathode end
- Weight: 0.007ounce,0.21 gram

#### SMB(DO-214AA)



Dimensions in inches and (millimeters)

### Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60HZ, resistive or inductive load. For capacitive load, derate current by 20%.

	Symbols	SR 52	SR 53	SR 54	SR 55	SR 56	SR 58	SR 510	SR 515	SR 520	Units	
Maximum repetitive peak reverse voltage	VRRM	20	30	40	50	60	80	100	150	200	Volts	
Maximum RMS voltage	VRMS	14	21	28	35	42	57	71	105	140	Volts	
Maximum DC blocking voltage	VDC	20	30	40	50	60	80	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 at rated TL)	IFSM	150.0									Amps	
Maximum instantaneous forward voltage at 5.0 A(Note 1)	VF	0.55			0.70		0.85		0.90		0.95	Volts
Maximum instantaneous reverse current at rated DC blocking voltage(Note 1)	IR	0.2									mA	
		50			10							
Typical junction capacitance(Note 3)	CJ	500			400						PF	
Typical thermal resistance (Note 2)	R <sub>θJA</sub>	55.0									°C/W	
	R <sub>θJL</sub>	17.0										
Operating junction temperature range	TJ	-65 to+150									°C	
Storage temperature range	TSTG	-65 to+150									°C	

### NOTES:

1. Pulse test: 300µS pulse width,1% duty cycle
2. P.C.B. mounted 0.55X0.55"(14X14mm) copper pad areas
3. Measured at 1MHz and reverse voltage of 4.0 volts

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### RATINGS AND CHARACTERISTIC CURVES (SR52 THRU SR520)

FIG.1-FORWARD CURRENT DERATING CURVE

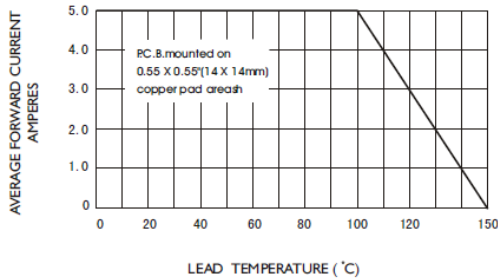


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

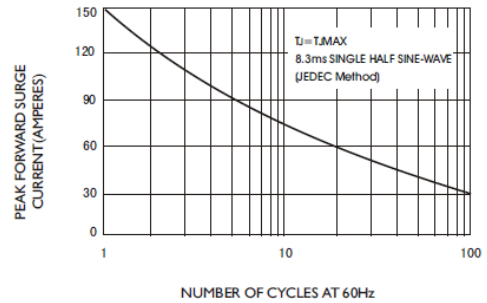


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

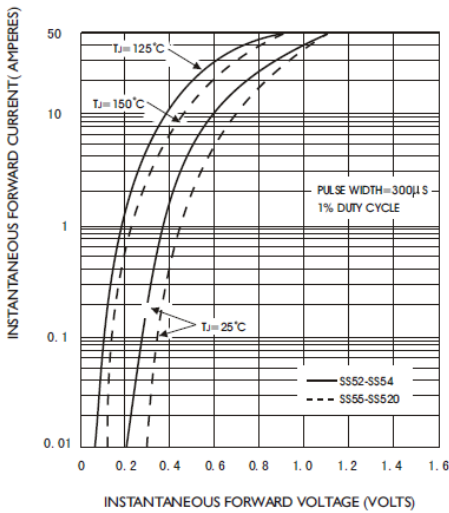


FIG.4-TYPICAL REVERSE CHARACTERISTICS

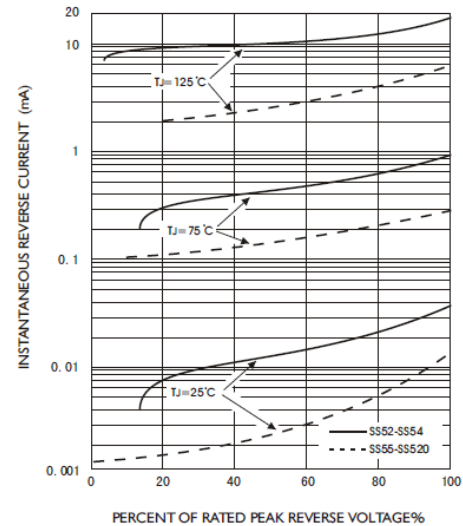


FIG.5-TYPICAL JUNCTION CAPACITANCE

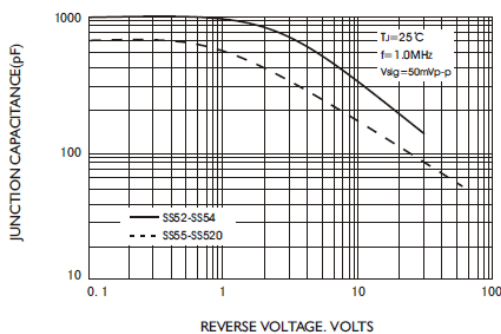


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

