

# SB580 THRU SB5100

## SCHOTTKY BARRIER RECTIFIER

VOLTAGE: 80 TO 100V      CURRENT: 5.0A

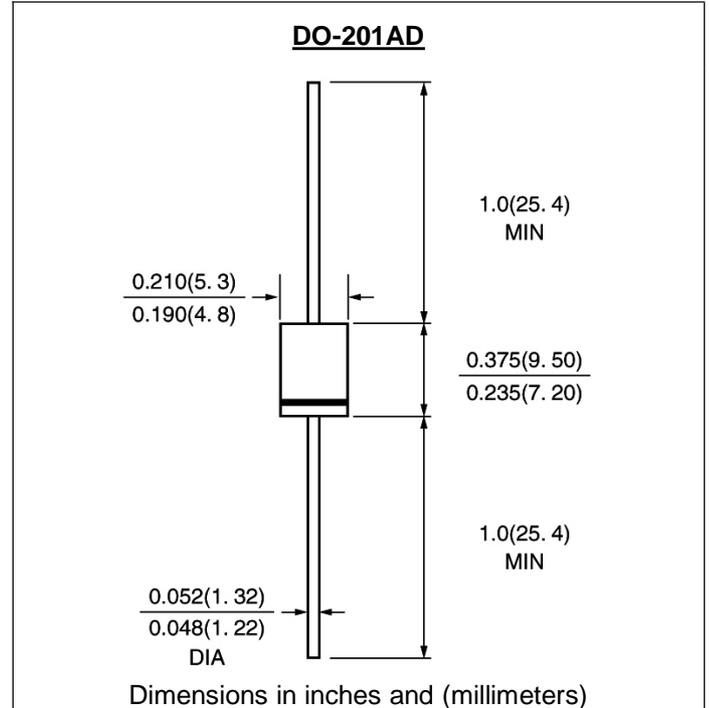


### FEATURE

High current capability, Low forward voltage drop  
 Low power loss, high efficiency  
 High surge capability  
 High temperature soldering guaranteed  
 250°C /10sec/0.375" lead length at 5 lbs tension

### MECHANICAL DATA

Terminal: Plated axial leads solderable per  
 MIL-STD 202E, method 208C  
 Case: Molded with UL-94 Class V-0 recognized Flame  
 Retardant Epoxy  
 Polarity: color band denotes cathode  
 Mounting position: any



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(single-phase, half-wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated)

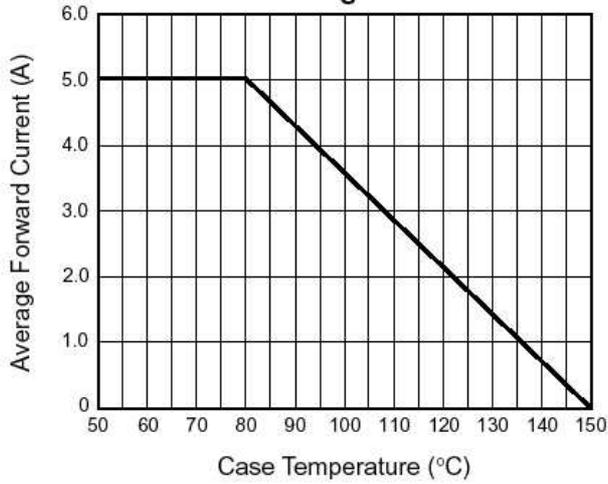
	SYMBOL	SB 580	SB 590	SB 5100	units
Maximum Recurrent Peak Reverse Voltage	V <sub>rrm</sub>	80	90	100	V
Maximum RMS Voltage	V <sub>rms</sub>	57	65	71	V
Maximum DC blocking Voltage	V <sub>dc</sub>	80	90	100	V
Maximum Average Forward Rectified Current 3/8" lead length	I <sub>f(av)</sub>	5.0			A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I <sub>fsm</sub>	150.0			A
Maximum Forward Voltage at 5.0A ((Note 1))	V <sub>f</sub>	0.8	0.85		V
Maximum DC Reverse Current      Ta =25°C at rated DC blocking voltage      Ta =100°C	I <sub>r</sub>	500			uA mA
		25			
Typical Thermal Resistance (Note 2)	R(ja)	25.0			°C /W
Storage and Operating Junction Temperature	T <sub>j</sub>	-50 to +150			°C

Note:

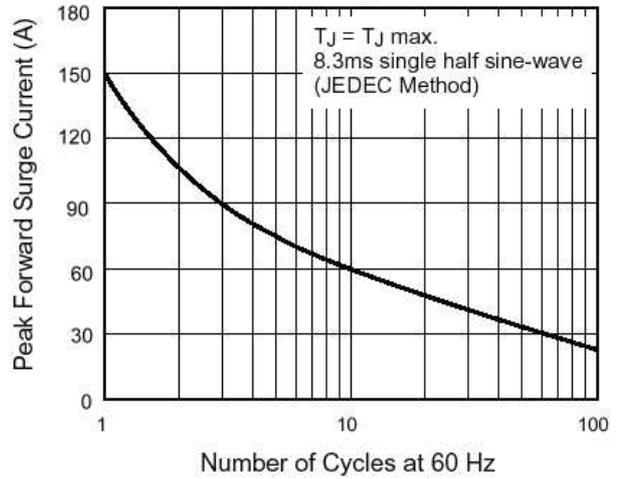
1. Pulse test: 300µs pulse width, 1% duty cycle
2. Thermal Resistance from Junction to Ambient at 0.5" lead length, vertical P.C. Board Mounted <sup>1</sup>

2

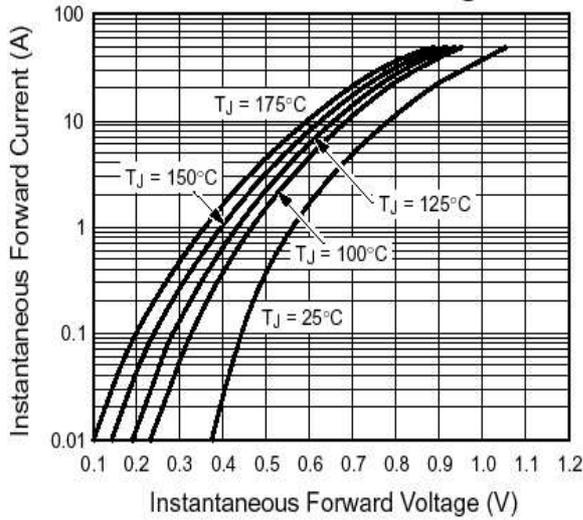
**Fig. 1 – Forward Current Derating Curve**



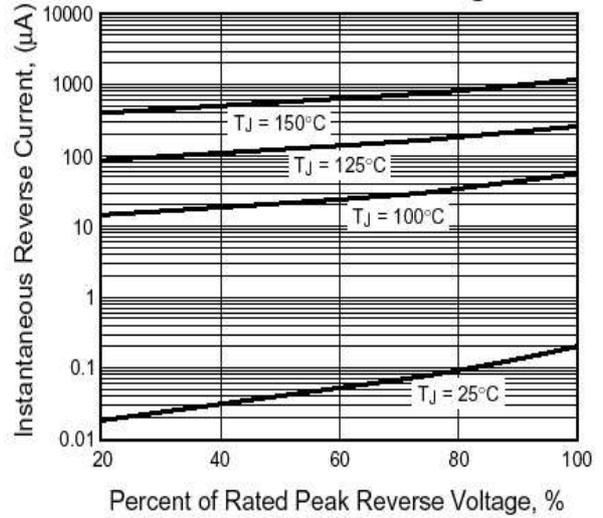
**Fig. 2 - Maximum Non-repetitive Peak Forward Surge Current**



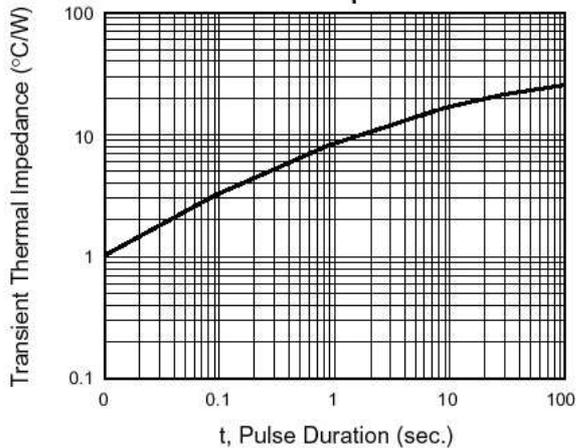
**Fig. 3 – Typical Instantaneous Forward Characteristics Per Leg**



**Fig. 4 – Typical Reverse Characteristics Per Leg**



**Fig. 5 - Typical Transient Thermal Impedance**



**Fig. 6 – Typical Junction Capacitance**

