SB580 THRU SB5100

SCHOTTKY BARRIER RECTIFIER

VOLTAGE: 80 to 100V **CURRENT: 5.0A**

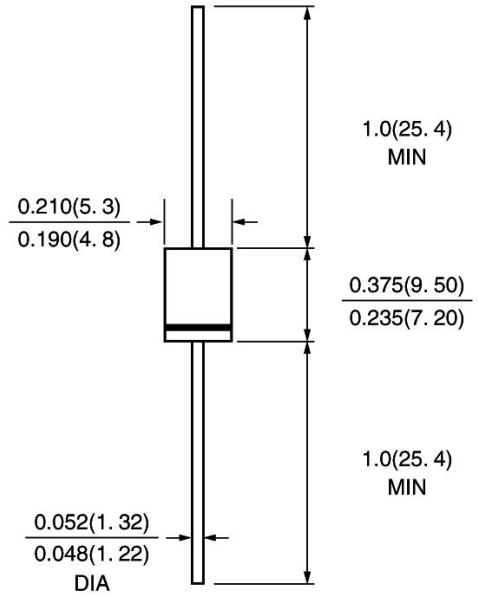
FEATURE

High current capability, Low forward voltage drop
Low power loss, high efficiency
High surge capability
High temperature soldering guaranteed:
260°C /10sec/0.375" lead length

MECHANICAL DATA

Terminal: Plated axial leads solderable per J-STD-002
Case: Molded with UL-94 Class V-0 recognized Flame Retardant Epoxy
Polarity: color band denotes cathode
Mounting position: any

DO-201AD



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

	SYMBOL	SB580	SB590	SB5100	units
Maximum Recurrent Peak Reverse Voltage	Vrrm	80	90	100	V
Maximum RMS Voltage	Vrms	57	65	71	V
Maximum DC blocking Voltage	Vdc	80	90	100	V
Maximum Average Forward Rectified Current 3/8" lead length	If(av)	5.0			A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	Ifsm	150.0			A
Maximum Forward Voltage at 5.0A ((Note 1)	Vf	0.8	0.85		V
Maximum DC Reverse Current Ta =25°C	Ir	500			uA
at rated DC blocking voltage Ta =100°C		25			mA
Typical Thermal Resistance (Note 2)	Rth(ja)	25.0			°C /W
Storage and Operating Junction Temperature	Tj, Tstg	-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

Fig. 1 – Forward Current Derating Curve

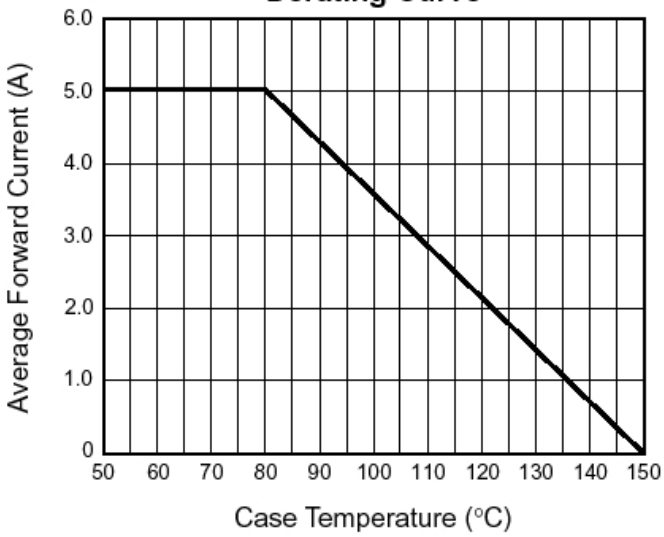


Fig. 2 - Maximum Non-repetitive Peak Forward Surge Current

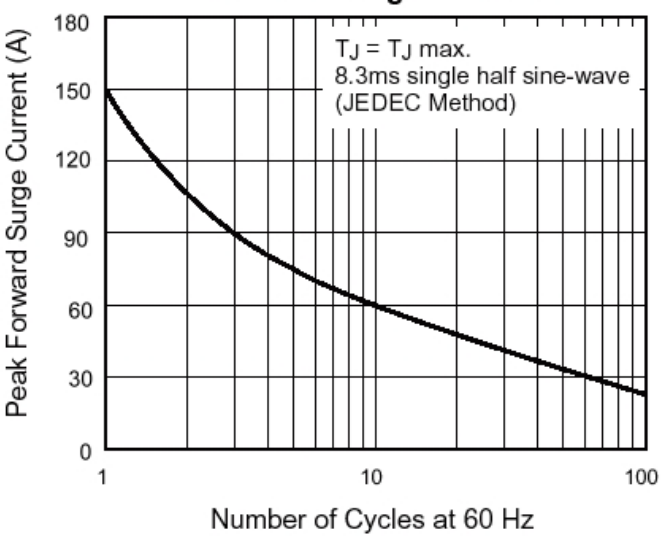


Fig. 3 – Typical Instantaneous Forward Characteristics Per Leg

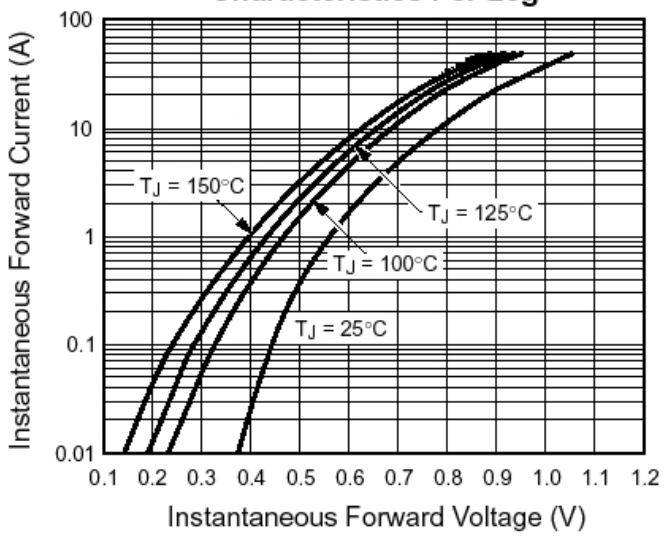


Fig. 4 – Typical Reverse Characteristics Per Leg

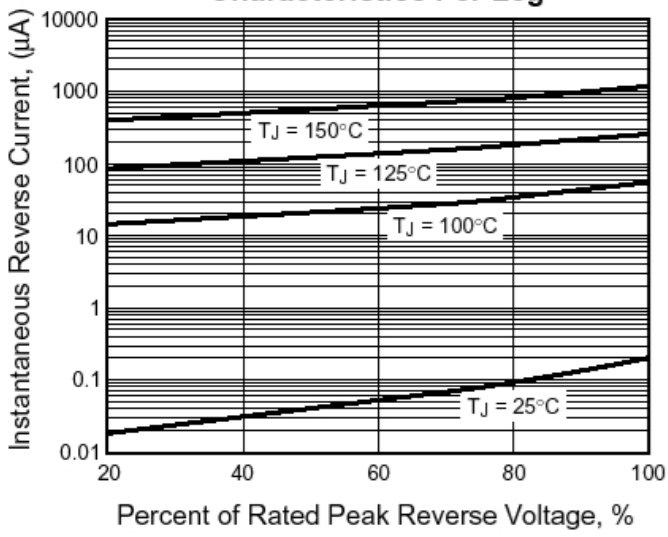


Fig. 5 - Typical Transient Thermal Impedance

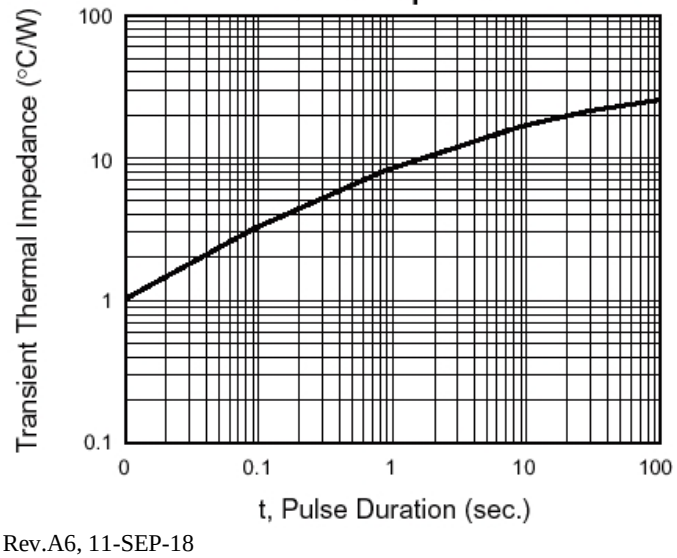


Fig. 6 – Typical Junction Capacitance