SB120E THRU SB160E

SCHOTTKY BARRIER RECTIFIER

VOLTAGE: 20 TO 60V CURRENT: 1.0A

GULF SBMI

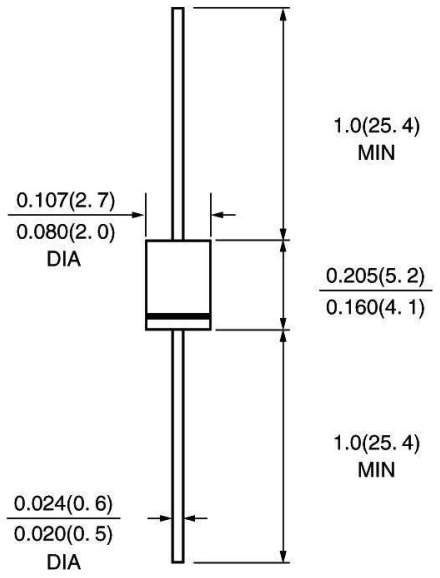
FEATURE

High current capability, Low forward voltage drop
Low power loss, high efficiency
High surge capability
High temperature soldering guaranteed
250℃ /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

A-405



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

	SYMBOL	SB 120E	SB 130E	SB 140E	SB 150E	SB 160E	units
Maximum Recurrent Peak Reverse Voltage	Vrrm	20	30	40	50	60	V
Maximum RMS Voltage	Vrms	14	21	28	35	42	V
Maximum DC blocking Voltage	Vdc	20	30	40	50	60	V
Maximum Average Forward Rectified Current 3/8" lead length	If(av)	1.0					A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	Ifsm	40.0					A
Maximum Forward Voltage at 1.0A DC	Vf	0.5			0.7		V
Maximum DC Reverse Current Ta =25℃ at rated DC blocking voltage Ta =100℃	Ir	1.0 10.0					mA mA
Typical Junction Capacitance (Note 1)	Cj	110.0					pF
Typical Thermal Resistance (Note 2)	R(ja)	50.0					℃ /W
Storage and Operating Junction Temperature	Tj	-65 to +125			-65 to +150		℃
Storage Temperature	Tstg	-65 to +150					℃

Note:
1. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
2. Thermal Resistance from Junction to Ambient at 0.5" lead length, vertical P.C. Board Mounted [1]

Fig. 1 - Forward Current Derating Curve

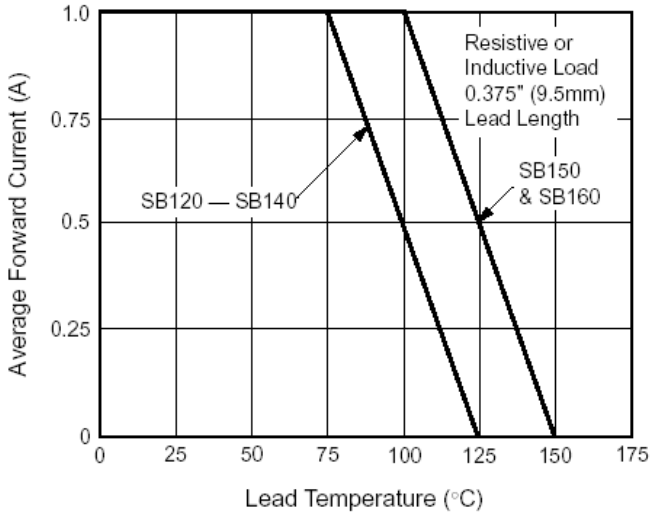


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

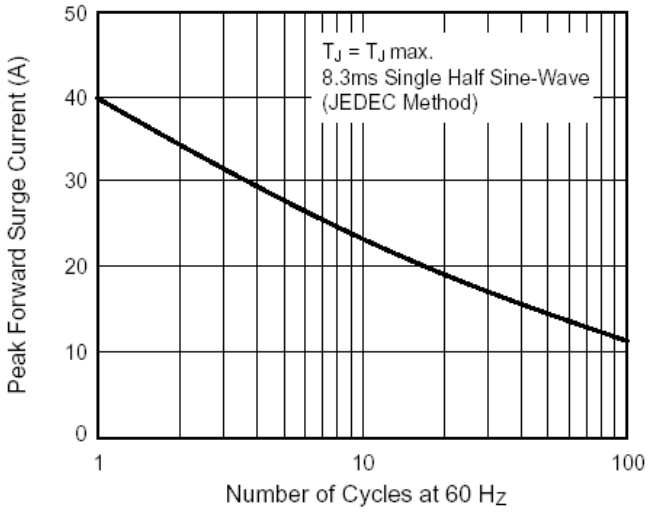


Fig. 3 - Typical Instantaneous Forward Characteristics

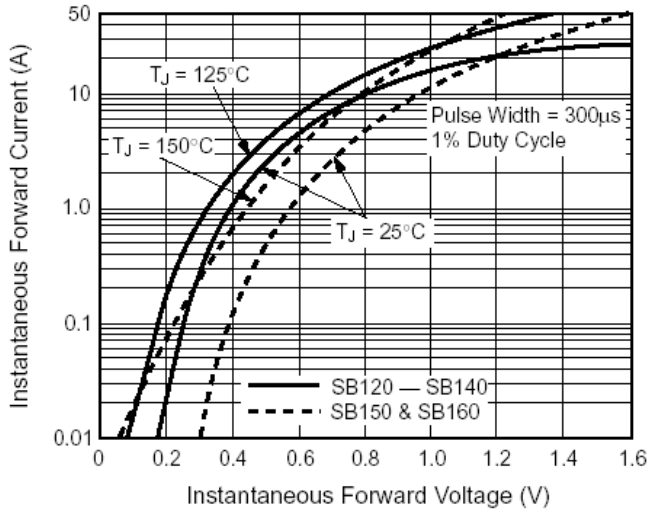


Fig. 4 - Typical Reverse Characteristics

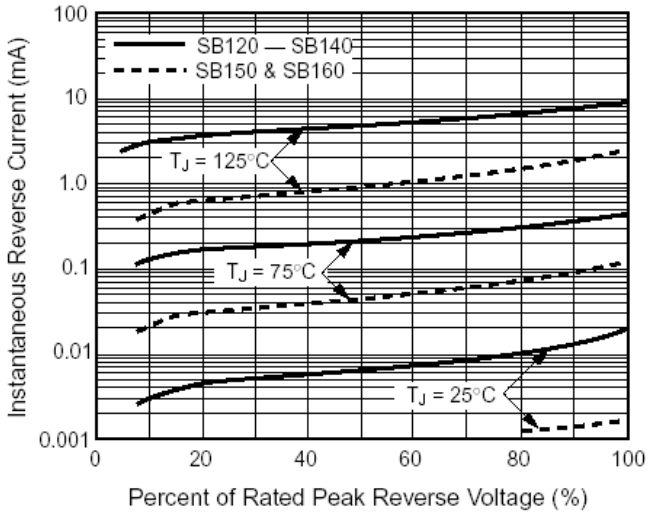


Fig. 5 - Typical Junction Capacitance

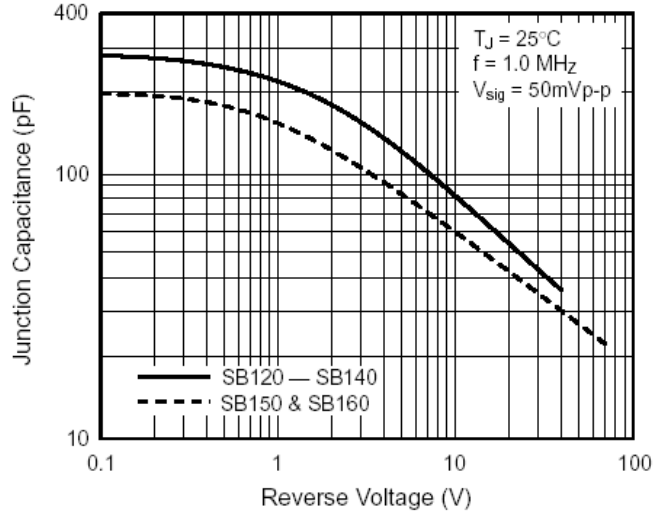


Fig. 6 - Typical Transient Thermal Impedance