

SB120E THRU SB160E

SCHOTTKY BARRIER RECTIFIER

VOLTAGE: 20 TO 60V

CURRENT: 1.0A

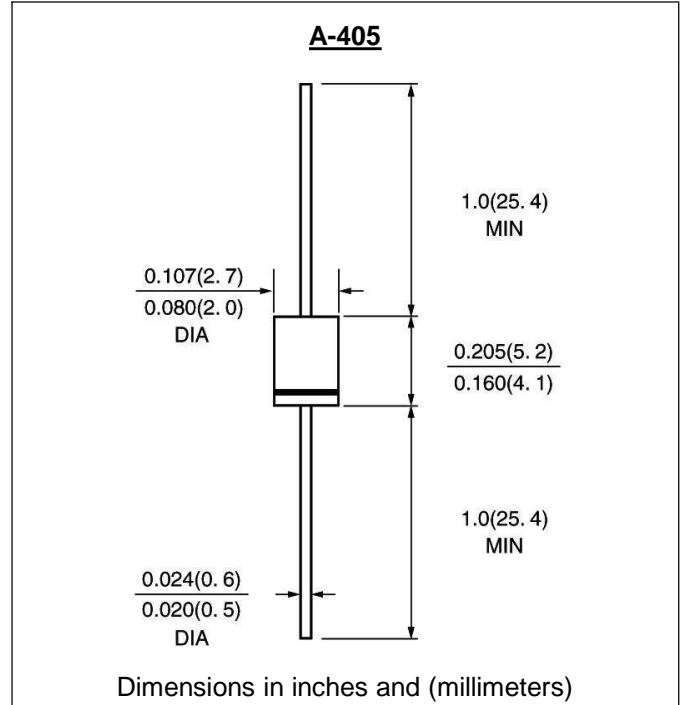


FEATURE

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 120E	SB 130E	SB 140E	SB 150E	SB 160E	units
Maximum Recurrent Peak Reverse Voltage	V _{rrm}	20	30	40	50	60	V
Maximum RMS Voltage	V _{rms}	14	21	28	35	42	V
Maximum DC blocking Voltage	V _{dc}	20	30	40	50	60	V
Maximum Average Forward Rectified Current 3/8" lead length	I _{f(av)}	1.0					A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load	I _{fsm}	40.0					A
Maximum Forward Voltage at 1.0A DC	V _f	0.5		0.7			V
Maximum DC Reverse Current Ta =25°C at rated DC blocking voltage Ta =100°C	I _r	1.0 10.0					mA mA
Typical Junction Capacitance (Note 1)	C _j	110.0					pF
Typical Thermal Resistance (Note 2)	R(ja)	50.0					°C /W
Storage and Operating Junction Temperature	T _j	-65 to +125			-65 to +150		°C
Storage Temperature	T _{stg}	-65 to +150					°C

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

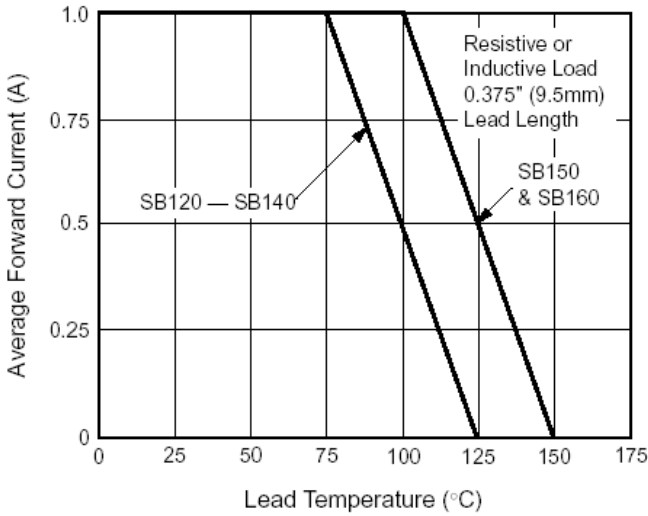


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

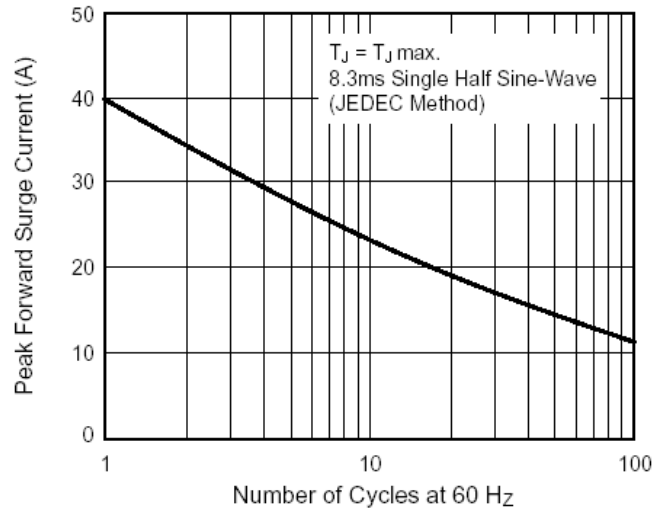


Fig. 3 - Typical Instantaneous Forward Characteristics

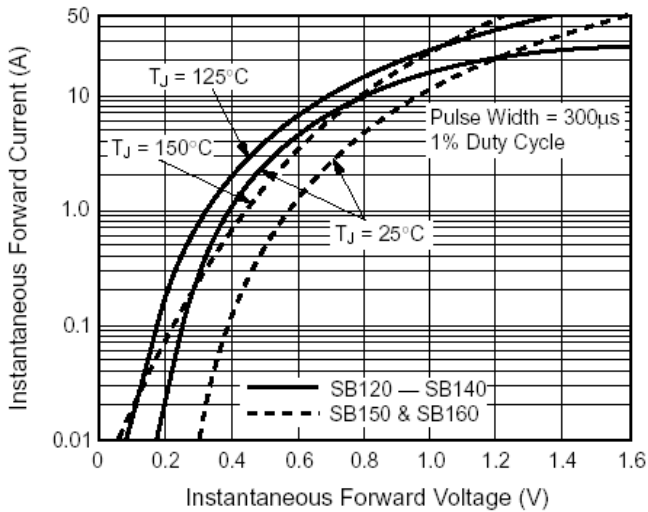


Fig. 4 - Typical Reverse Characteristics

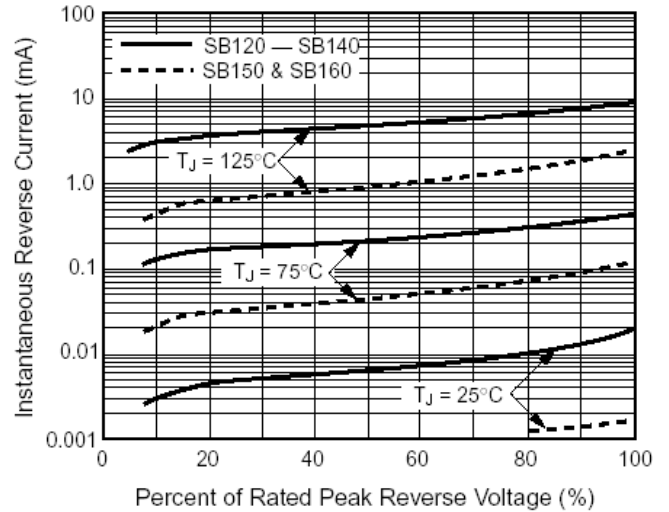


Fig. 5 - Typical Junction Capacitance

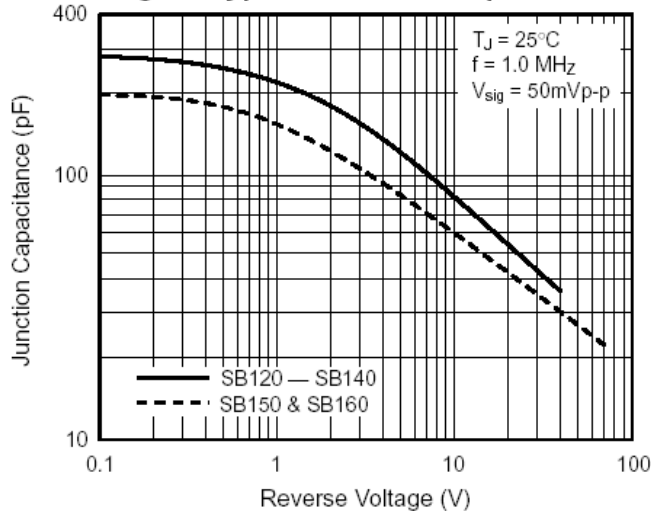


Fig. 6 - Typical Transient Thermal Impedance

