

# SB120 THRU SB160

## SCHOTTKY BARRIER RECTIFIER

VOLTAGE: 20 TO 60V      CURRENT: 1.0A

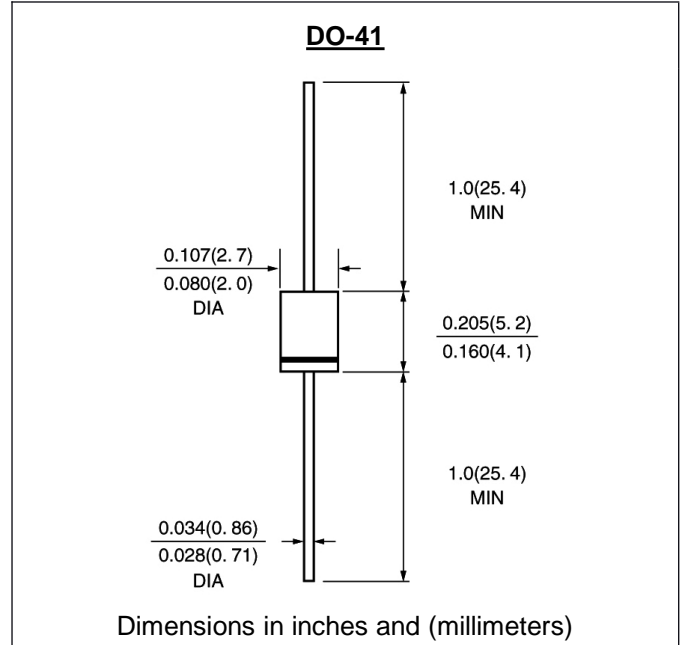


### FEATURE

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



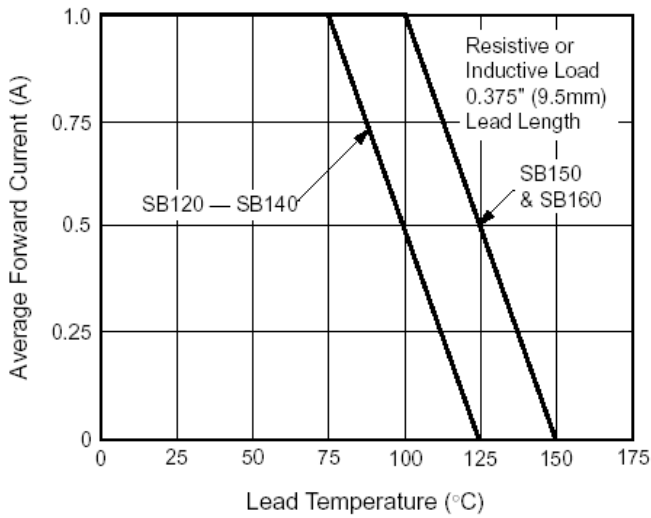
### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

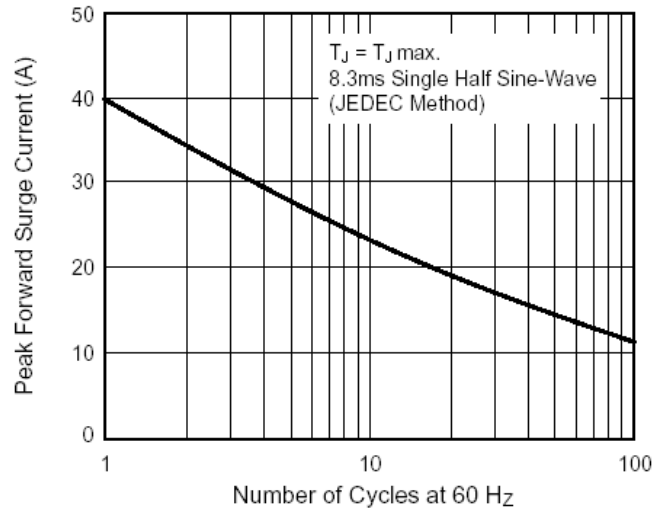
	SYMBOL	SB 120	SB 130	SB 140	SB 150	SB 160	units
Maximum Recurrent Peak Reverse Voltage	Vrrm	20	30	40	50	60	V
Maximum RMS Voltage	Vrms	14	21	28	35	42	V
Maximum DC blocking Voltage	Vdc	20	30	40	50	60	V
Maximum Average Forward Rectified Current 3/8" lead length	If(av)	1.0					A
Peak Forward Surge Current 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 at rated DC blocking voltage Ta =25°C Ta =100°C	Ir	500 10.0					uA mA
Typical Junction Capacitance (Note 1)	Cj	110.0					pF
Typical Thermal Resistance (Note 2)	R(ja)	50.0					°C /W
Storage and Operating Junction Temperature	Tj	-65 to +125			-65 to +150		°C
Storage Temperature	Tstg	-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 <sup>1</sup>

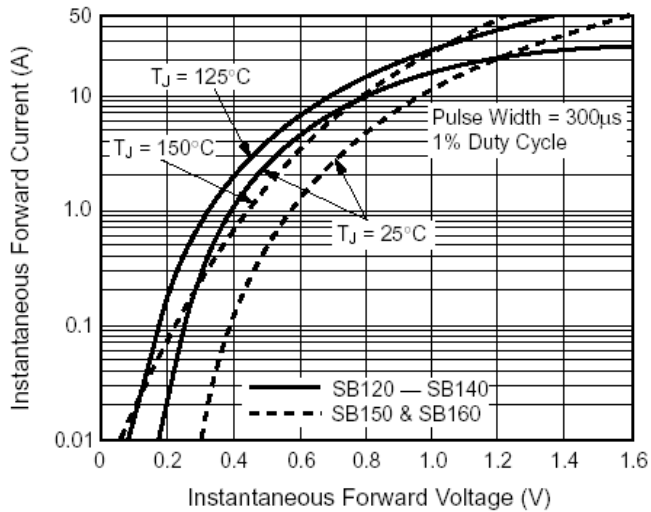
**Fig. 1 - Forward Current Derating Curve**



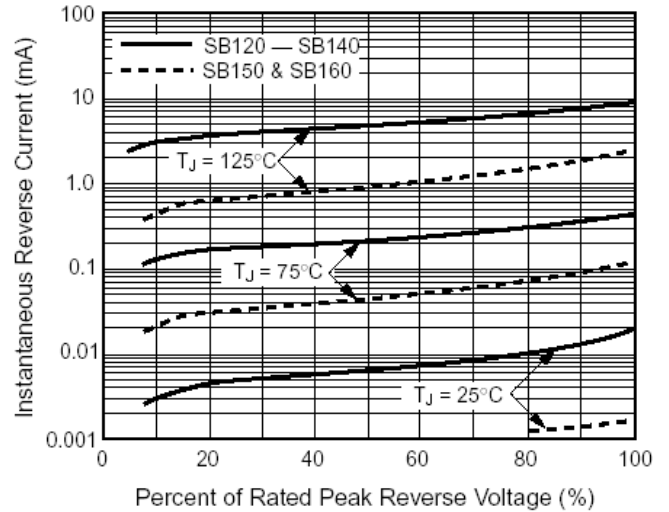
**Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current**



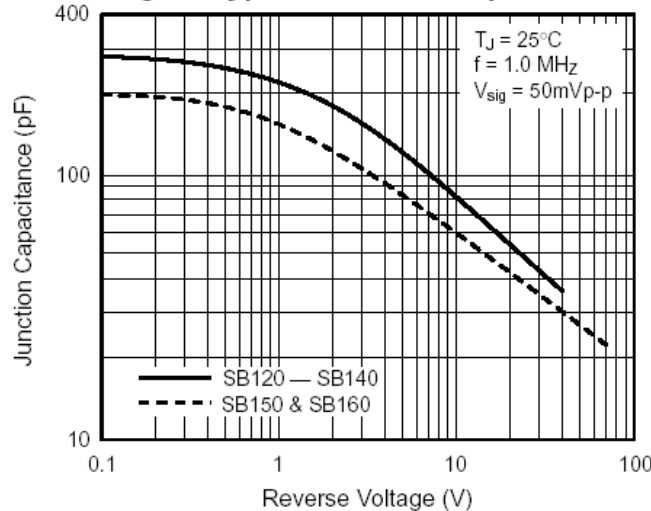
**Fig. 3 - Typical Instantaneous Forward Characteristics**



**Fig. 4 - Typical Reverse Characteristics**



**Fig. 5 - Typical Junction Capacitance**



**Fig. 6 - Typical Transient Thermal Impedance**

