## **SB220 THRU SB2100**

# 2 AMPERE SCHOTTKY BARRIER RECTIFIERS VOLTAGE - 20 to 100 Volts CURRENT - 2.0 Amperes

**FEATURES** 

Plastic package has Underwriters Laboratory
 Flammability Classification 94V-O utilizing
 Flame Retardant Epoxy Molding Compound

- 2 ampere operation at T<sub>L</sub>=75 **¢ J** with no thermal runaway
- Exceeds environmental standards of MIL-S-19500/228
- For use in low voltage, high frequency inverters free wheeling, and polarlity protection applications

### **MECHANICAL DATA**

Case: Molded plastic, DO-15

Terminals: Axial leads, solderable per MIL-STD-202,

Method 208

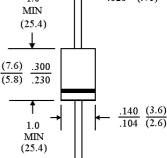
Polarity: Color band denotes cathode

Mounting Position: Any

Weight: 0.015 ounce, 0.4 gram

# 1.0 .034 (.86) MIN .25 4)

**DO-15** 



Dimensions in inches and (millimeters)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 () ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

<u></u>	SB220	SB230	SB240	SB250	SB260	SB280	SB2100	UNITS
Maximum Recurrent Peak Reverse Voltage	20	30	40	50	60	80	100	V
Maximum RMS Voltage	14	21	26	35	42	56	80	V
Maximum DC Blocking Voltage	20	30	40	50	60	80	100	V
Maximum Forward Voltage at 2.0A	0.50 0.70 0.85					V		
Maximum Average Forward Rectified Current .375" Lead Length at T <sub>A</sub> =75 <b>¢</b>	2.0							Α
Peak Forward Surge Current I <sub>FM</sub> (surge) 8.3msec. single half sine-wave superimposed on rated load (JEDEC method)	50							A
Maximum Full Load Reverse Current, Full Cycle Average at T <sub>A</sub> =75 <b>¢J</b>	30							mA
Maximum Reverse Current T <sub>A</sub> =25 <b>¢</b> J	0.5							mA
at Rated Reverse Voltage T <sub>A</sub> =100 <b>¢J</b>	20.0							
Typical Junction capacitance (Note 1)	170							₽F
Typical Thermal Resistance <b>£K</b> JA (Note 2)	35							¢J/W
Operating and Storage Temperature Range	-50 TO +125							¢J

#### NOTES:

- 1. Measured at 1 MHz and applied reverse voltage of 4.0 VDC
- 2. Thermal Resistance Junction to Ambient



### RATING AND CHARACTERISTIC CURVES SB220 THRU SB2100

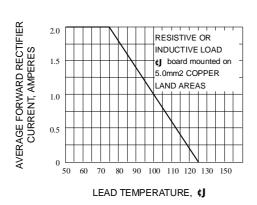
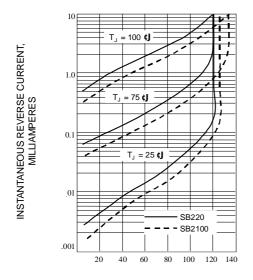
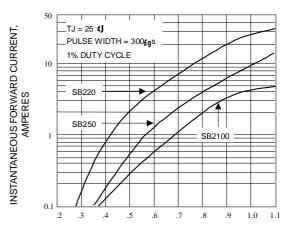


Fig. 1-FORWARD CURRENT DERATING CURVE



PERCENT OF RATED PEAK REVERSE VOLTAGE, %

Fig. 3-TYPICAL REVERSE CHARACTERISTICS



INSTANTANEOUS FORWARD VOLTAGE, VOLTS

Fig. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

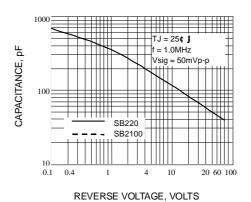
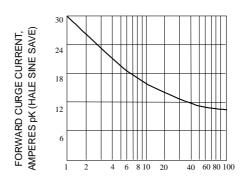


Fig. 4-TYPICAL JUNCTION CAPACITANCE



NUMBER OF CYCLES AT  $60\mathrm{Hz}$ 

Fig. 5-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

