

# SB270-E THRU SB2100-E

## SCHOTTKY BARRIER RECTIFIER

VOLTAGE: 70 TO 100V

CURRENT: 2.0A



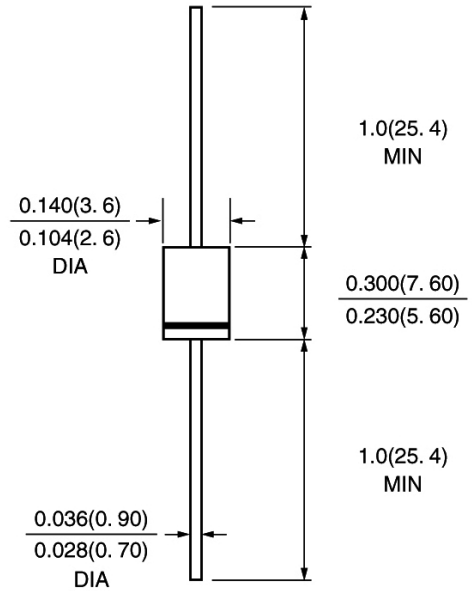
### FEATURE

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  
Halogen Free

### MECHANICAL DATA

Terminal: Plated axial leads solderable per MIL-STD 202E, method 208C  
Case: Molded with UL-94 Class V-0 recognized Halogen Free Epoxy  
Polarity: color band denotes cathode  
Mounting position: any

### DO-15\ DO-204AC



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

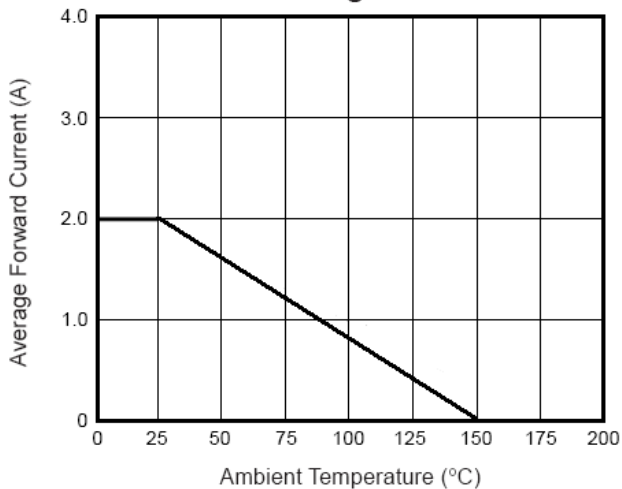
(single-phase, half-wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated)

|   | SYMBOL                            | SB270-E     | SB280-E | SB290-E | SB2100-E | units |
|---|-----------------------------------|-------------|---------|---------|----------|-------|
| Maximum Recurrent Peak Reverse Voltage  | V <sub>rrm</sub>                  | 70          | 80      | 90      | 100      | V     |
| Maximum RMS Voltage   | V <sub>rms</sub>                  | 49          | 56      | 63      | 70       | V     |
| Maximum DC blocking Voltage   | V <sub>dc</sub>                   | 70          | 80      | 90      | 100      | V     |
| Maximum Average Forward Rectified Current<br>0.375" lead length Ta=25°C             | I <sub>f(av)</sub>                | 2.0         |         |         |          | A     |
| Peak Forward Surge Current 8.3ms singlehalf sine-wave superimposed on rated load    | I <sub>fsm</sub>                  | 70.0        |         |         |          | A     |
| Maximum Forward Voltage at 2.0A DC (Note 1)   | V <sub>f</sub>                    | 0.79        |         |         |          | V     |
| Maximum DC Reverse Current<br>at rated DC blocking voltage<br>Ta =25°C<br>Ta =100°C | I <sub>r</sub>                    | 0.5<br>20.0 |         |         |          | mA    |
| Typical Thermal Resistance (Note 2)   | R <sub>th(ja)</sub>               | 60.0        |         |         |          | °C/W  |
| Storage and Operating Junction Temperature  | T <sub>j</sub> , T <sub>stg</sub> | -55 to +150 |         |         |          | °C    |

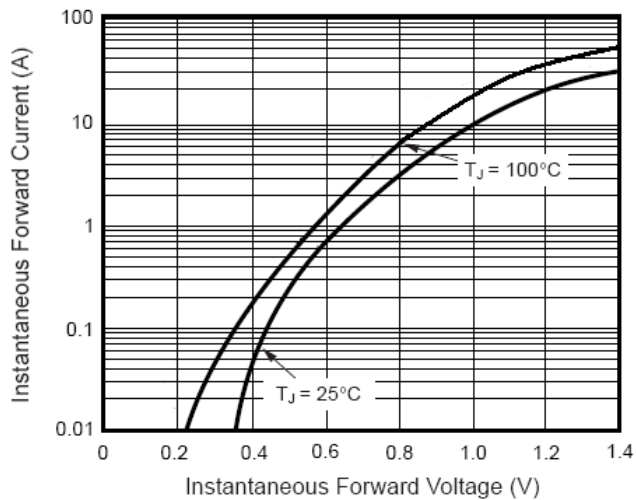
Note:

1. Pulse test :300uS pulse width ,1% duty cycle.
2. Thermal Resistance from Junction to Ambient at 0.5" lead length, vertical P.C. Board Mounted

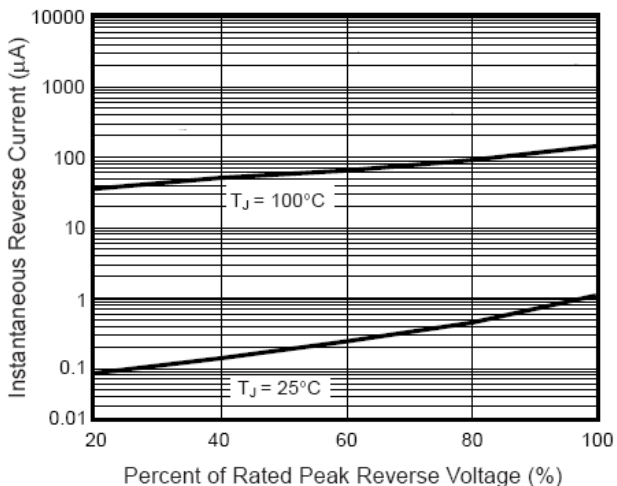
**Fig. 1 – Forward Current Derating Curve**



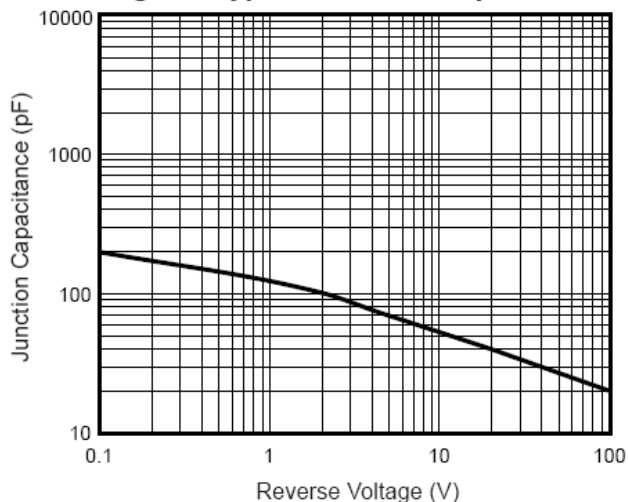
**Fig. 2 – Typical Instantaneous Forward Characteristics**



**Fig. 3 – Typical Reverse Characteristics**



**Fig. 4 – Typical Junction Capacitance**



**Fig. 5 - Typical Transient Thermal Impedance**

