

# SB1620CT THRU SB1660CT

## SCHOTTKY BARRIER RECTIFIER

VOLTAGE: 20 TO 60V

CURRENT: 16.0A

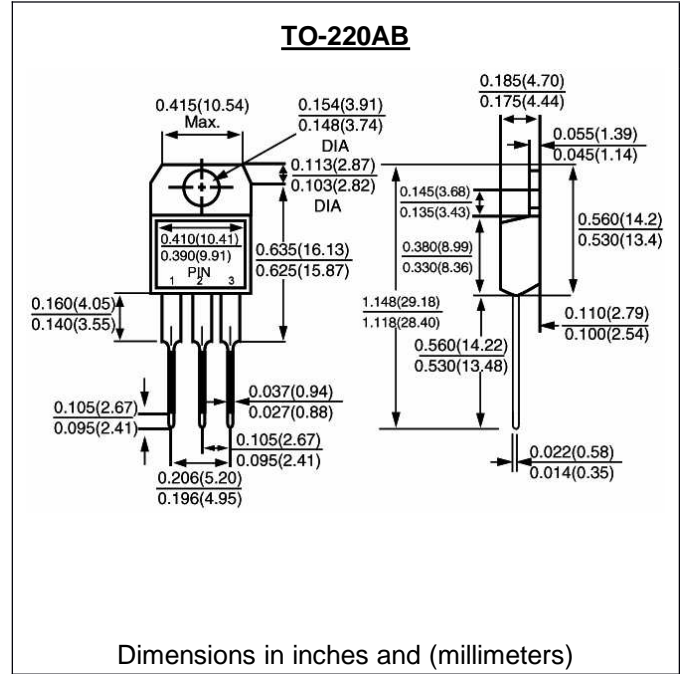


### FEATURE

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: Common Cathode  
 Mounting position: any



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)

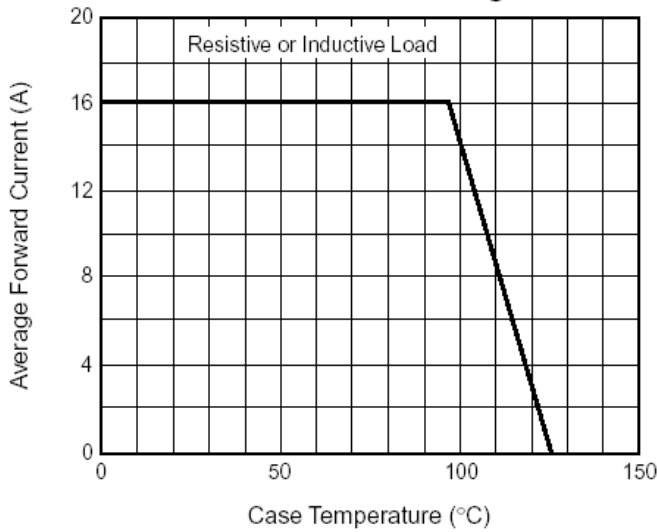
|                                                                                   | SYMBOL             | SB16<br>20CT | SB16<br>30CT | SB16<br>35CT | SB16<br>40CT | SB16<br>45CT | SB16<br>50CT | SB16<br>60CT | units |
|-----------------------------------------------------------------------------------|--------------------|--------------|--------------|--------------|--------------|--------------|--------------|--------------|-------|
| Maximum Recurrent Peak Reverse Voltage                                            | V <sub>rrm</sub>   | 20           | 30           | 35           | 40           | 45           | 50           | 60           | V     |
| Maximum RMS Voltage                                                               | V <sub>rms</sub>   | 14           | 21           | 25           | 28           | 32           | 35           | 42           | V     |
| Maximum DC blocking Voltage                                                       | V <sub>dc</sub>    | 20           | 30           | 35           | 40           | 45           | 50           | 60           | V     |
| Maximum Average Forward Rectified Current                                         | I <sub>f(av)</sub> | 16           |              |              |              |              |              |              | A     |
| Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load | I <sub>fsm</sub>   | 150          |              |              |              |              |              |              | A     |
| Maximum Forward Voltage at 8.0A                                                   | V <sub>f</sub>     | 0.65         |              |              |              |              | 0.75         |              | V     |
| Maximum DC Reverse Current at rated DC blocking voltage                           | I <sub>r</sub>     | 1.0          |              |              |              |              |              |              | mA    |
|                                                                                   |                    | 30.0         |              |              |              |              | 50.0         |              | mA    |
| Typical Junction Capacitance (Note 1)                                             | C <sub>j</sub>     | 700          |              |              |              |              | 500          |              | pF    |
| Typical Thermal Resistance (Note 2)                                               | R(ja)              | 3.0          |              |              |              |              |              |              | °C/W  |
| Operating Junction Temperature                                                    | T <sub>j</sub>     | -40 to +125  |              |              |              |              | -50 to +150  |              | °C    |
| Storage Temperature Range                                                         | T <sub>stg</sub>   | -65 to +150  |              |              |              |              |              |              | °C    |

Note:

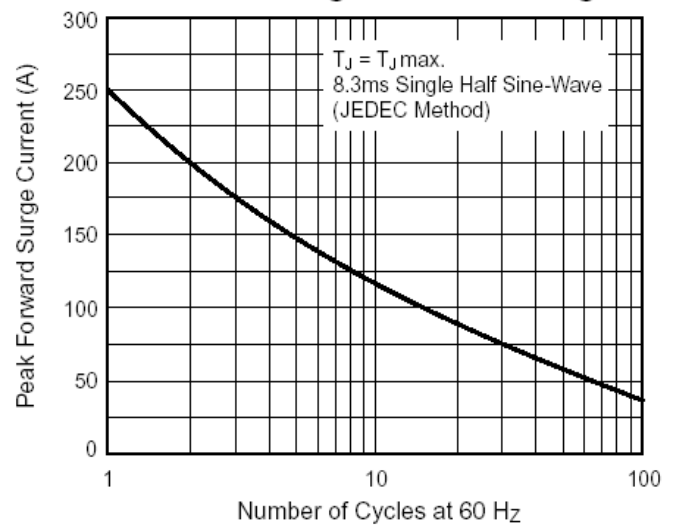
1. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
2. Thermal Resistance from Junction to Case

RATINGS AND CHARACTERISTIC CURVES SB1620CT THRU SB1660CT

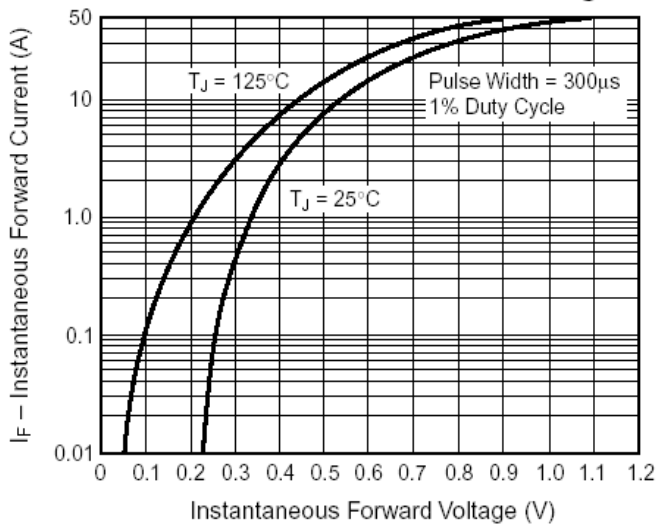
Forward Current Derating Curve



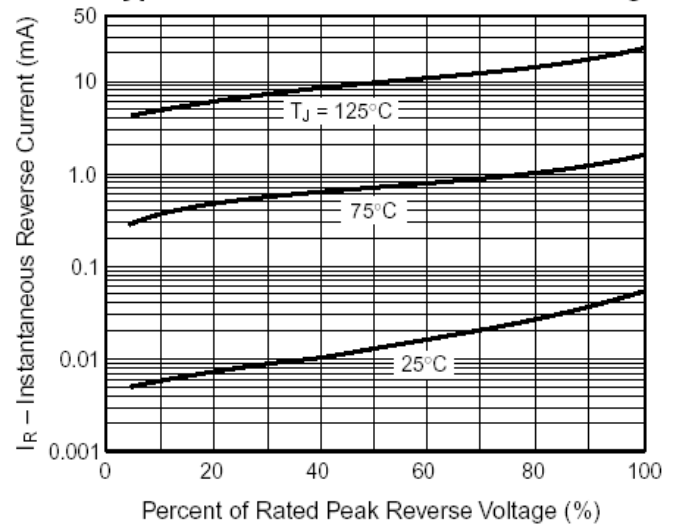
Maximum Non-Repetitive Peak Forward Surge Current Per Leg



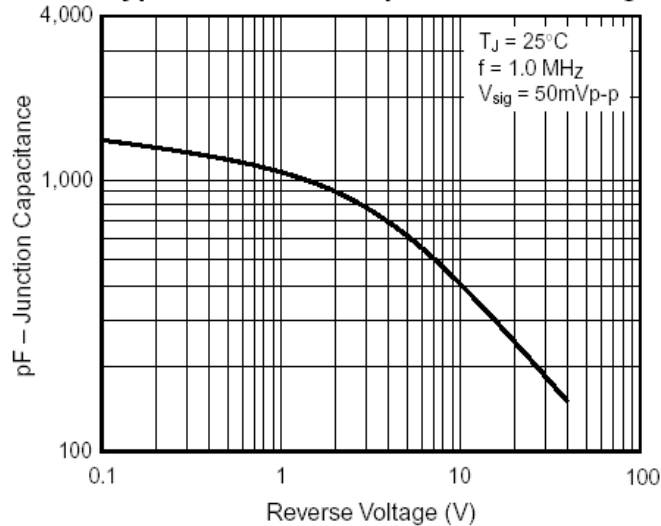
Typical Instantaneous Forward Characteristics Per Leg



Typical Reverse Characteristics Per Leg



Typical Junction Capacitance Per Leg



Typical Transient Thermal Impedance Per Leg

