



SHANGHAI SUNRISE ELECTRONICS CO., LTD.

## SB1620C THRU SB1660C

SCHOTTKY BARRIER

RECTIFIER

TECHNICAL  
SPECIFICATION

VOLTAGE: 20 TO 60V CURRENT: 16A

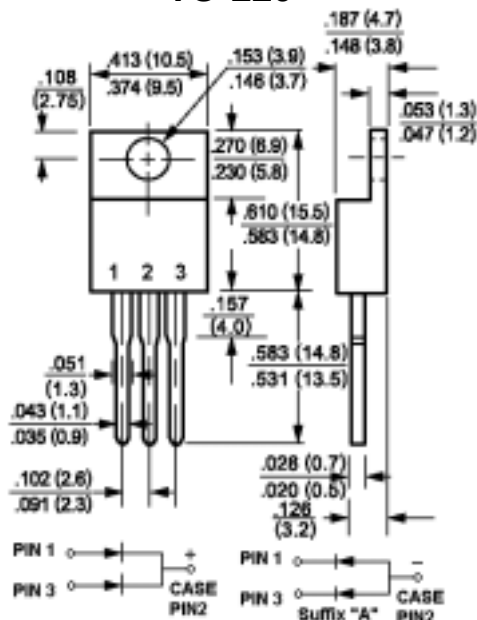
### FEATURES

- Epitaxial construction for chip
- High current capability
- Low forward voltage drop
- Low power loss, high efficiency
- High surge capability
- High temperature soldering guaranteed:  
250°C/10sec/0.375"(9.5mm) lead length  
at 5 lbs tension

### MECHANICAL DATA

- Terminal: Plated leads solderable per  
MIL-STD 202E, method 208C
- Case: Molded with UL-94 Class V-O  
recognized flame retardant epoxy
- Polarity: Common cathode, Suffix "A" Common anode
- Mounting position: Any

### TO-220



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, for capacitive load, derate current by 20%)

| RATINGS                                                                                | SYMBOL             | SB<br>1620C | SB<br>1630C | SB<br>1635C | SB<br>1640C | SB<br>1650C | SB<br>1660C | UNITS |
|----------------------------------------------------------------------------------------|--------------------|-------------|-------------|-------------|-------------|-------------|-------------|-------|
| Maximum Repetitive Peak Reverse Voltage                                                | V <sub>RRM</sub>   | 20          | 30          | 35          | 40          | 50          | 60          | V     |
| Maximum RMS Voltage                                                                    | V <sub>RMS</sub>   | 14          | 21          | 25          | 28          | 35          | 42          | V     |
| Maximum DC Blocking Voltage                                                            | V <sub>DC</sub>    | 20          | 30          | 35          | 40          | 50          | 60          | V     |
| Maximum Average Forward Rectified Current<br>(T <sub>C</sub> =95°C)                    | I <sub>F(AV)</sub> | 16          |             |             |             |             |             | A     |
| Peak Forward Surge Current (8.3ms single<br>half sine-wave superimposed on rated load) | I <sub>FSM</sub>   | 150         |             |             |             |             |             | A     |
| Maximum Forward Voltage (at 8.0A DC)                                                   | V <sub>F</sub>     | 0.65        |             |             |             | 0.75        |             | V     |
| Maximum DC Reverse Current<br>(at rated DC blocking voltage)                           | I <sub>R</sub>     | 5.0         |             |             |             |             |             | mA    |
| T <sub>a</sub> =25°C<br>T <sub>a</sub> =100°C                                          |                    | 50.0        |             |             |             |             |             | mA    |
| Typical Junction Capacitance (Note 1)                                                  | C <sub>J</sub>     | 700         |             |             |             | 500         |             | pF    |
| Typical Thermal Resistance (Note 2)                                                    | R <sub>θ(ja)</sub> | 3           |             |             |             |             |             | °C/W  |
| Operating Junction Temperature                                                         | T <sub>J</sub>     | -65 to +125 |             |             |             | -65 to +150 |             | °C    |
| Storage Temperature                                                                    | T <sub>STG</sub>   | -65 to +150 |             |             |             |             |             | °C    |

Note:

1. Measured at 1.0 MHz and applied reverse voltage of  $4.0V_{dc}$
2. Thermal resistance from junction to case
3. Suffix "A" common anode

<http://www.sse-diode.com>