# SHANGHAI SUNRISE ELECTRONICS CO., LTD.

## *SB1620C THRU SB1660C*

SCHOTTKY BARRIER RECTIFIER

***TECHNICAL SPECIFICATION***

***VOLTAGE: 20 TO 60V  CURRENT: 16A***

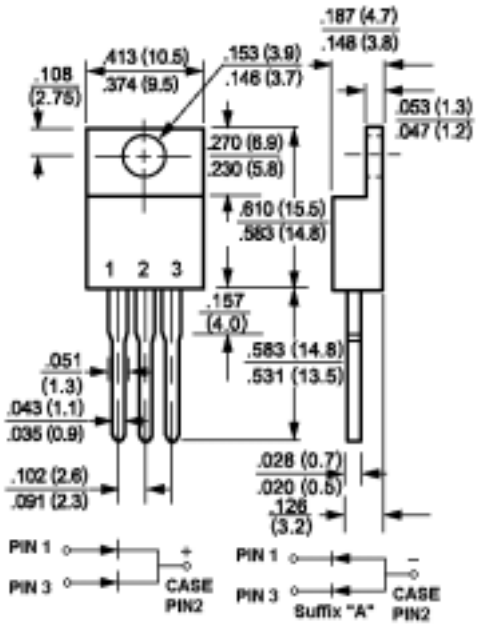
## FEATURES

- 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 1620C | SB 1630C | SB 1635C | SB 1640C | SB 1650C | SB 1660C | UNITS |
|---|---|---|---|---|---|---|---|---|
| Maximum Repetitive Peak Reverse Voltage | $V_{RRM}$ | 20 | 30 | 35 | 40 | 50 | 60 | V |
| Maximum RMS Voltage | $V_{RMS}$ | 14 | 21 | 25 | 28 | 35 | 42 | V |
| Maximum DC Blocking Voltage | $V_{DC}$ | 20 | 30 | 35 | 40 | 50 | 60 | V |
| Maximum Average Forward Rectified Current ($T_C$=95°C) | $I_{F(AV)}$ | 16 | | | | | | A |
| Peak Forward Surge Current (8.3ms single half sine-wave superimposed on rated load) | $I_{FSM}$ | 150 | | | | | | A |
| Maximum Forward Voltage (at 8.0A DC) | $V_F$ | 0.65 | | | | 0.75 | | V |
| Maximum DC Reverse Current $T_a$=25°C | $I_R$ | 5.0 | | | | | | mA |
| (at rated DC blocking voltage) $T_a$=100°C | | 50.0 | | | | | | mA |
| Typical Junction Capacitance (Note 1) | $C_J$ | 700 | | | | 500 | | pF |
| Typical Thermal Resistance (Note 2) | $R_\theta$(ja) | 3 | | | | | | °C/W |
| Operating Junction Temperature | $T_J$ | -65 to +125 | | | | -65 to +150 | | °C |
| Storage Temperature | $T_{STG}$ | -65 to +150 | | | | | | °C |

Note:

1.Measured at 1.0 MHz and applied reverse voltage of 4.0$V_{dc}$

2.Thermal resistance from junction to case

3. Suffix "A" common anode