

# DATA SHEET

## SB620F~SB660F

### ISOLATION SCHOTTKY BARRIER RECTIFIERS

**VOLTAGE** 20 to 60 Volts **CURRENT** 6.0 Ampers

ITO-220AC

Unit : inch (mm)

#### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound.
- Exceeds environmental standards of MIL-S-19500/228
- Low power loss, high efficiency.
- Low forward voltage, high current capability
- High surge capacity.
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications.
- Pb free product are available : 99% Sn above can meet Rohs environment substance directive request

#### MECHANICAL DATA

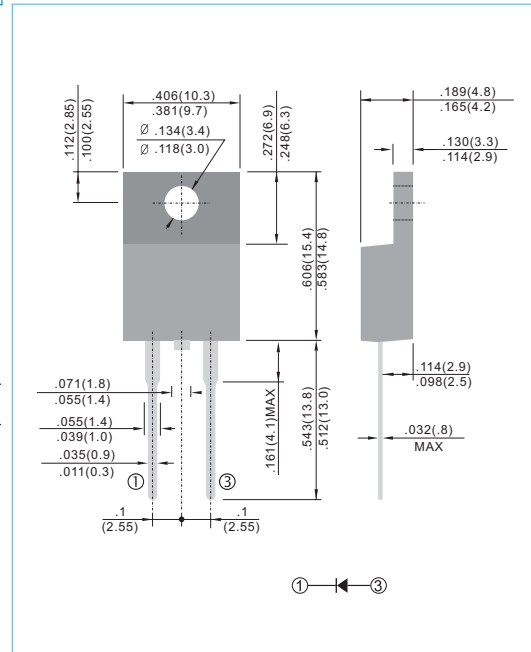
Case: ITO-220AC full molded plastic package

Terminals: Lead solderable per MIL-STD-202G, Method 208

Polarity: As marked.

Mounting Position: Any

Weight: 0.08 ounces, 2.24grams.



#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

| PARAMETER                                                                                        | SYMBOL                           | SB620F      | SB630F | SB640F | SB650F | SB660F | UNITS  |
|--------------------------------------------------------------------------------------------------|----------------------------------|-------------|--------|--------|--------|--------|--------|
| Maximum Recurrent Peak Reverse Voltage                                                           | V <sub>RRM</sub>                 | 20          | 30     | 40     | 50     | 60     | V      |
| Maximum RMS Voltage                                                                              | V <sub>RMS</sub>                 | 14          | 21     | 28     | 35     | 42     | V      |
| Maximum DC Blocking Voltage                                                                      | V <sub>DC</sub>                  | 20          | 30     | 40     | 50     | 60     | V      |
| Maximum Average Forward Current .375"(9.5mm) lead length at Tc =75°C                             | I <sub>AV</sub>                  | 6.0         |        |        |        |        | A      |
| Peak Forward Surge Current :8.3ms single half sine-wave superimposed on rated load(JEDEC method) | I <sub>FSM</sub>                 | 75          |        |        |        |        | A      |
| Maximum Forward Voltage at 6.0A                                                                  | V <sub>F</sub>                   | 0.55        |        |        | 0.70   |        | V      |
| Maximum DC Reverse Current Tc=25°C at Rated DC Blocking Voltage Tc=100°C                         | I <sub>R</sub>                   | 0.2<br>15   |        |        |        |        | mA     |
| Typical Thermal Resistance                                                                       | RθJC<br>RθJA                     | 6<br>80     |        |        |        |        | °C / W |
| Operating Junction Temperature Range                                                             | T <sub>J</sub>                   | -50 to +125 |        |        |        |        | °C     |
| Storage Temperature Range                                                                        | T <sub>J</sub> ,T <sub>STG</sub> | -50 to +150 |        |        |        |        | °C     |

#### NOTES:

Both Bonding and Chip structure are available.

## RATING AND CHARACTERISTIC CURVES

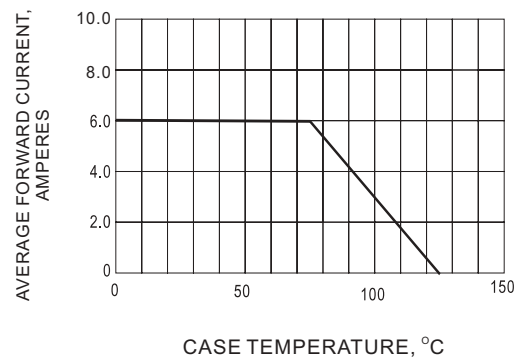


Fig.1- FORWARD CURRENT DERATING CURVE

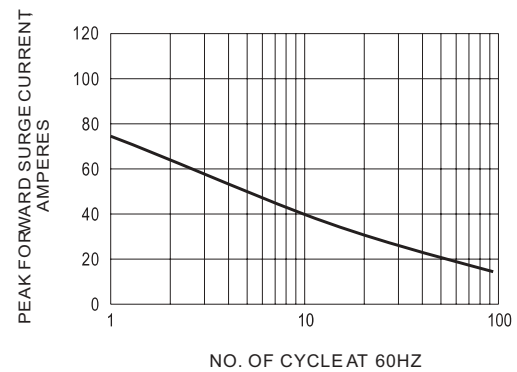


Fig.2- MAXIMUM NON - REPETITIVE SURGE CURRENT

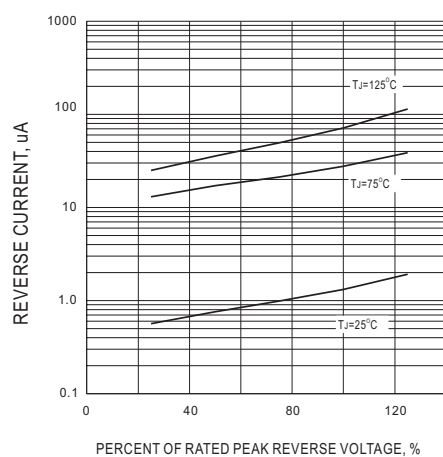


Fig.3- TYPICAL REVERSE CHARACTERISTIC

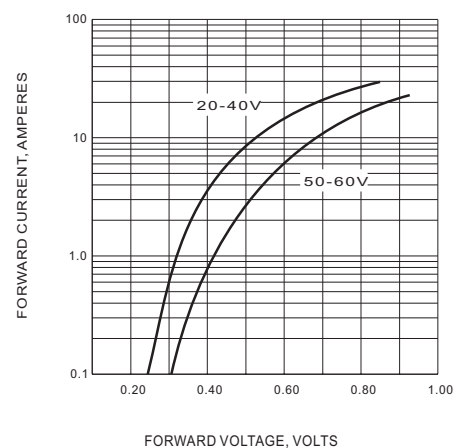


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC