



# SB1620F THRU SB16100F

ISOLATION SCHOTTKY BARRIER RECTIFIERS  
 VOLTAGE - 20 to 100 Volts CURRENT - 16.0 Amperes

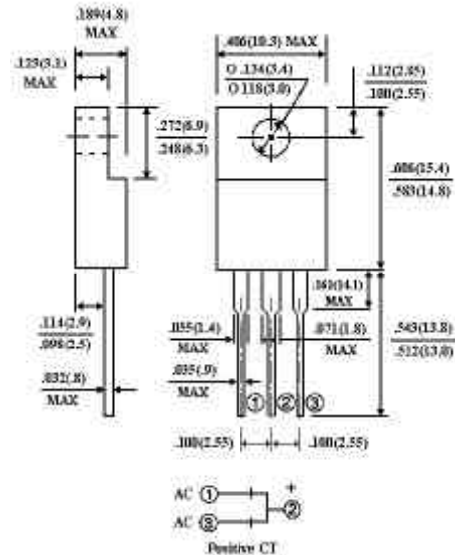
ITO-220AB

## FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0 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

## MECHANICAL DATA

- Case: ITO-220AB full molded plastic package
- Terminals: Leads, solderable per MIL-STD-202, Method 208
- Polarity: As marked
- Mounting Position: Any
- Weight: 0.08 ounce, 2.24 grams



Dimensions in inches and (millimeters)

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.

Resistive or inductive load Single phase half wave 60Hz.

For capacitive load, derate current by 20%.

|  | SB1620F     | SB1630F | SB1640F | SB1650F | SB1660F | SB1680F | SB16100F | UNITS              |
|--|-------------|---------|---------|---------|---------|---------|----------|--------------------|
| Maximum Recurrent Peak Reverse Voltage   | 20          | 30      | 40      | 50      | 60      | 80      | 100      | V                  |
| Maximum RMS Voltage  | 14          | 21      | 26      | 35      | 42      | 56      | 80       | V                  |
| Maximum DC Blocking Voltage  | 20          | 30      | 40      | 50      | 60      | 80      | 100      | V                  |
| Maximum Average Forward Rectified Current at $T_C=90\text{ }^\circ\text{C}$                      | 16.0        |         |         |         |         |         |          | A                  |
| Peak Forward Surge Current, 8.3ms single half sine wave superimposed on rated load(JEDEC method) | 150         |         |         |         |         |         |          | A                  |
| Maximum Forward Voltage at 8.0A per element  | 0.55        |         | 0.75    |         | 0.85    |         |          | V                  |
| Maximum DC Reverse Current at Rated $T_C=25\text{ }^\circ\text{C}$                               | 0.5         |         |         |         |         |         |          | mA                 |
| DC Blocking Voltage per element $T_C=100\text{ }^\circ\text{C}$                                  | 100         |         |         |         |         |         |          |                    |
| Typical Thermal Resistance Note $R_{\theta KJA}$   | 60          |         |         |         |         |         |          | $^\circ\text{C/W}$ |
| Operating and Storage Temperature Range  | -50 TO +150 |         |         |         |         |         |          | $^\circ\text{C}$   |

## NOTES:

Thermal Resistance Junction to Ambient

RATING AND CHARACTERISTIC CURVES

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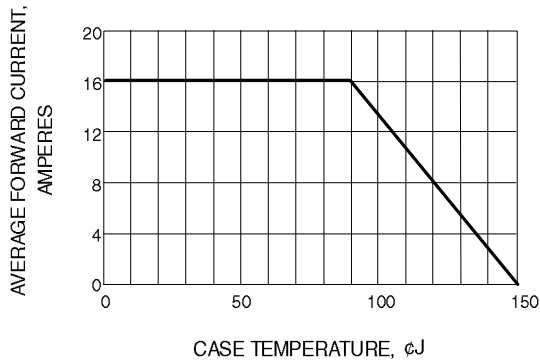


Fig. 1-FORWARD CURRENT DERATING CURVE

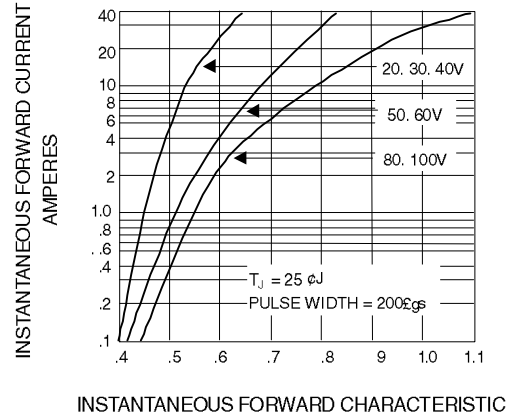


Fig. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

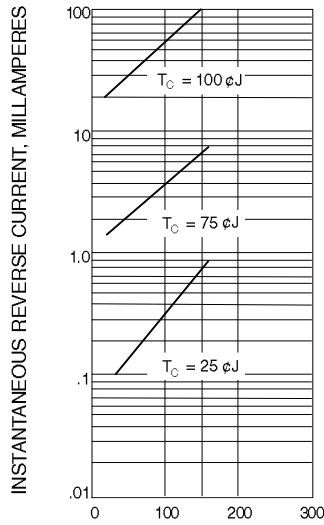


Fig. 3-TYPICAL REVERSE CHARACTERISTICS

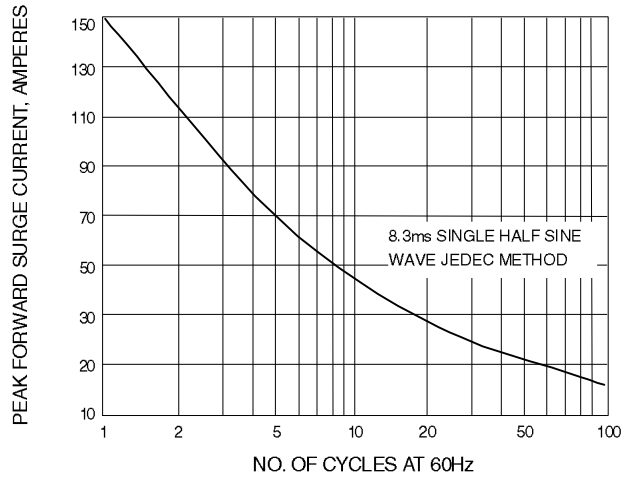


Fig. 4-MAXIMUM NON-REPETITIVE SURGE CURRENT

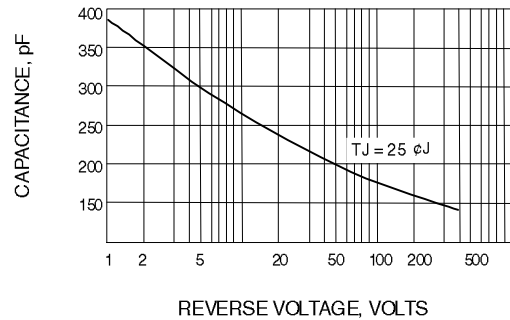


Fig. 5-TYPICAL JUNCTION CAPACITANCE