# DATA SHEET

Formosa MS

## SB1620FCT~SB16100FCT

### ISOLATION SCHOTTKY BARRIER RECTIFIERS

**VOLTAGE** 20 to 100 Volts **CURRENT** 16 Amperes

### 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 forwrd voltge, high current capability
- High surge capacity.
- For use in low voltage,high frequency inverters free wheeling , and polarlity protection applications.

### MECHANICAL DATA

Case: ITO-220AB molded plastic package

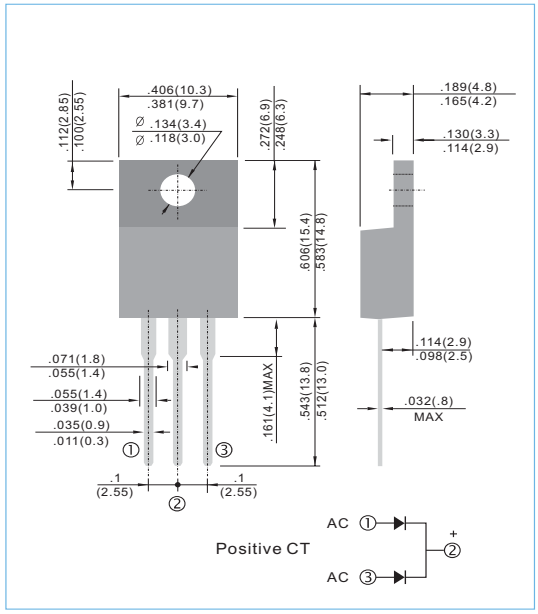
Terminals: Lead solderable per MIL-STD-202, Method 208

Polarity: As marked.

Mounting Position: Any

Weight: 0.08 ounces, 2.24 grams.

ITO-220AB Unit : inch (mm)




### 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 | SB1620FCT | SB1630FCT | SB1640FCT | SB1650FCT | SB1660FCT | SB1680FCT | SB16100FCT | UNITS |
|---|---|---|---|---|---|---|---|---|---|
| Maximum Recurrent Peak Reverse Voltage | $V_{RRM}$ | 20 | 30 | 40 | 50 | 60 | 80 | 100 | V |
| Maximum RMS Voltage | $V_{RMS}$ | 14 | 21 | 28 | 35 | 42 | 56 | 70 | V |
| Maximum DC Blocking Voltage | $V_{DC}$ | 20 | 30 | 40 | 50 | 60 | 80 | 100 | V |
| Maximum Average Forward Current .375"(9.5mm) lead length at Tc = 90°C | $I_{AV}$ | 16 | | | | | | | A |
| Peak Forward Surge Current :8.3ms single half sine-wave superimposed on rated load(JEDEC method) | $I_{FSM}$ | 150 | | | | | | | A |
| Maximum Forward Voltage at 8.0A per leg | $V_F$ | 0.55 | | | 0.75 | | 0.85 | | V |
| Maximum DC Reverse Current at Rated DC Blocking Voltage $T_A$=25°C<br>Maximum DC Reverse Current at Rated DC Blocking Voltag $T_A$=100°C | $I_R$ | 0.5<br>100 | | | | | | | mA |
| Typical Thermal Resistance | RθJC | 2.0 | | | | | | | °C / W |
| Operating Junction and Storage Temperature Range | $T_J$,$T_{STG}$ | -50 TO +125 | | | | | | | °C |

## RATING AND CHARACTERISTIC CURVES

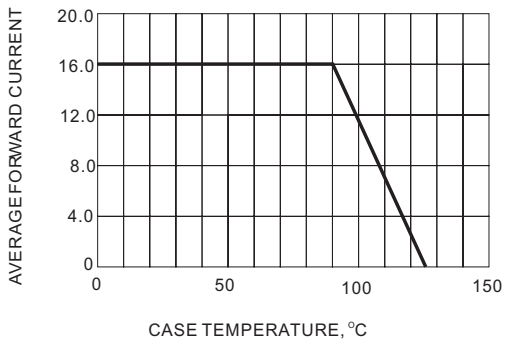



Fig.1- FORWARD CURRENT DERATING CURVE

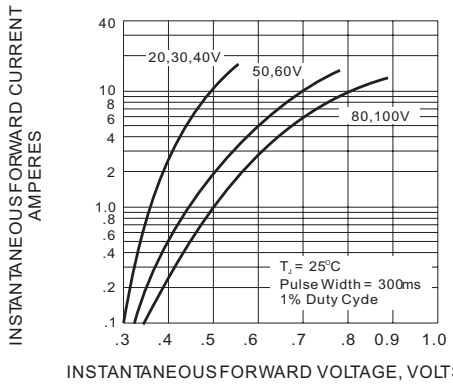



Fig.2- TYPICAL INSTANTANEOUS FORWARD CHRACTERISTICS

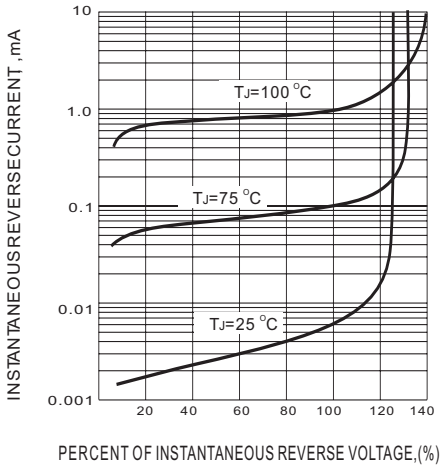



Fig.3- TYPICAL REVERSE CHARACTERISTIC

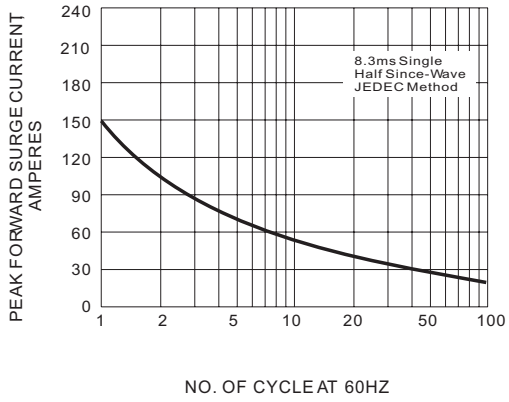



Fig.4- MAXIMUM NON - REPETITIVE SURGE CURRENT