



DATA SHEET

SB1020FCT~SB10150FCT

ISOLATION SCHOTTKY BARRIER RECTIFIERS

VOLTAGE 20 to 150 Volts **CURRENT** 10 Amperes

ITO-220AB Unit : inch (mm)

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O. 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

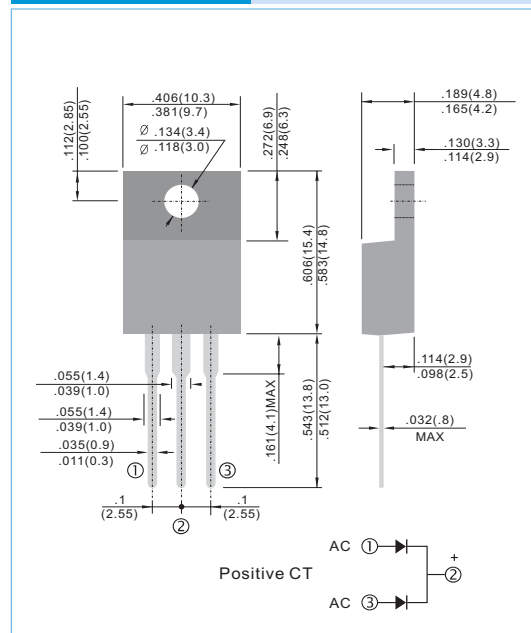
Case: ITO-220AB Molded plastic

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

Polarity: As marked.

Standard packaging: 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 | SB1020 FCT | SB1030 FCT | SB1040 FCT | SB1045 FCT | SB1050 FCT | SB1060 FCT | SB1080 FCT | SB10100 FCT | SB10150 FCT | UNITS | |
|--|-----------------------------------|-------------|------------|------------|------------|------------|------------|------------|-------------|-------------|-------|--------|
| Maximum Recurrent Peak Reverse Voltage | V _{RRM} | 20 | 30 | 40 | 45 | 50 | 60 | 80 | 100 | 150 | V | |
| Maximum RMS Voltage | V _{RMS} | 14 | 21 | 28 | 31.5 | 35 | 42 | 56 | 70 | 105 | V | |
| Maximum DC Blocking Voltage | V _{DC} | 20 | 30 | 40 | 45 | 50 | 60 | 80 | 100 | 150 | V | |
| Maximum Average Forward Current .375"(9.5mm) lead length at T _c =100°C | I _{AV} | 10 | | | | | | | | | 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 5.0A, per leg | V _F | 0.55 | | | 0.75 | | | 0.85 | | 0.92 | V | |
| Maximum DC Reverse Current TA=25°C at Rated DC Blocking Voltage TA=100°C | I _R | 0.5 | | | | | 50 | | | | | mA |
| Typical Thermal Resistance | R _{θJC} | 3.0 | | | | | | | | | | °C / W |
| Operating Junction and Storage Temperature Range | T _J , T _{STG} | -50 TO +125 | | | | | | | | | °C | |

NOTES:

Both Bonding and Chip structure are available.



RATING AND CHARACTERISTIC CURVES

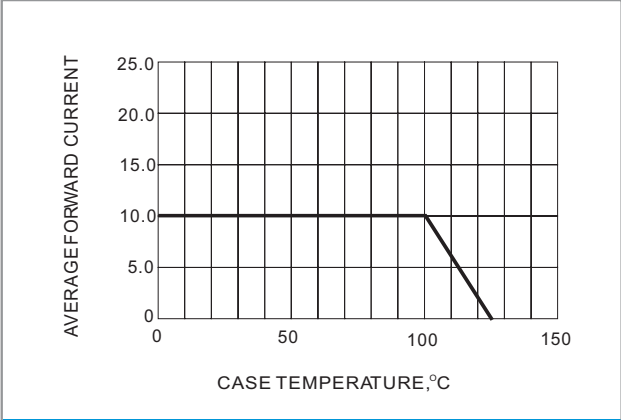


Fig. 1- FORWARD CURRENT DERATING CURVE

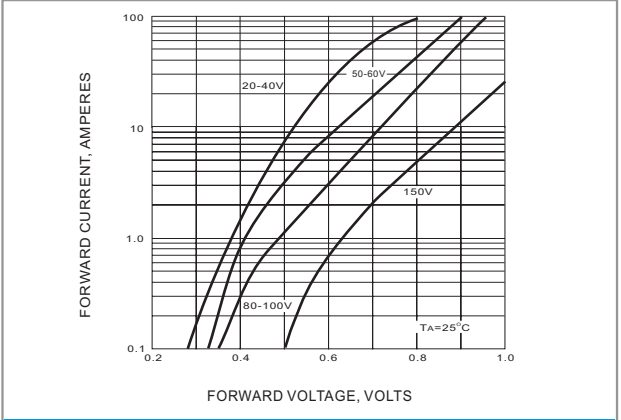


Fig. 2- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

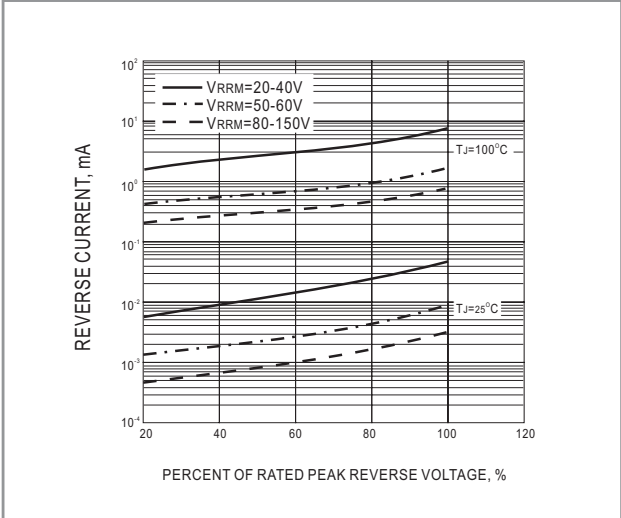


Fig. 3- TYPICAL REVERSE CHARACTERISTIC

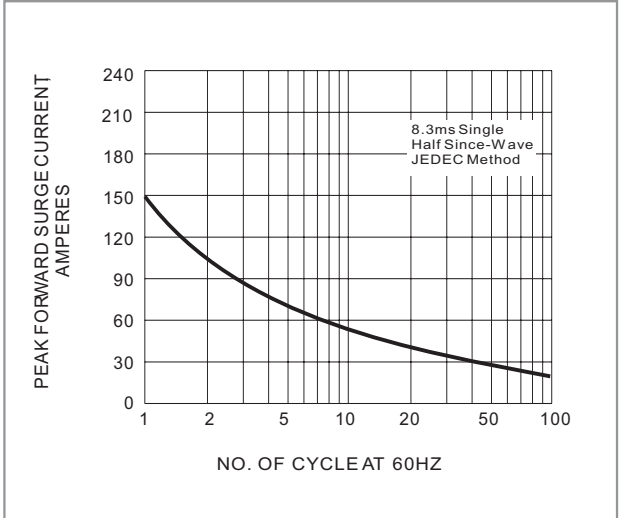


Fig. 4- TMAXIMUM NON - REPETITIVE SURGE CURRENT