



SB2020FCT SERIES

SCHOTTKY BARRIER RECTIFIERS

VOLTAGE 20 to 60 Volts CUR

CURRENT

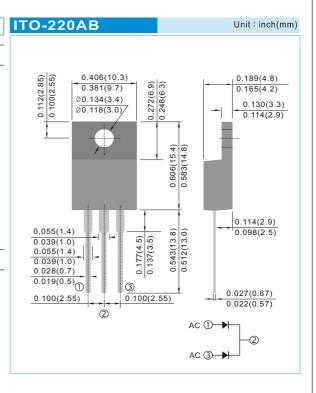
20 Amperes

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 polarlity protection applications.
- · Lead free in comply with EU RoHS 2002/95/EC directives

MECHANCAL DATA

- · Case: ITO-220AB full Molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- · Polarity: As marked.
- · Standard packaging: Any
- · Weight: 0.055 ounces, 1.5615 grams.



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 | SB2020FCT | SB2030FCT | SB2040FCT | SB2045FCT | SB2050FCT | SB2060FCT | UNITS |
|---|--------------------|-------------------------|-----------|-----------|-----------|-----------|-----------|--------|
| Maximum Recurrent Peak Reverse Voltage | V _{RRM} | 20 | 30 | 40 | 45 | 50 | 60 | V |
| Maximum RMS Voltage | V _{RMS} | 14 | 21 | 28 | 31 | 35 | 42 | V |
| Maximum DC Blocking Voltage | V _{DC} | 20 | 30 | 40 | 45 | 50 | 60 | V |
| Maximum Average Forward Current at Tc =75 °C | I _{F(AV)} | 20.0 | | | | | | А |
| Peak Forward Surge Current :8.3ms single half sine-wave superimposed on rated load (JEDEC method) | I _{FSM} | 200 | | | | | | Α |
| Maximum Forward Voltage at 10A per leg | V _F | 0.55 0.75 | | | | 75 | V | |
| | I _R | 0.2 50 | | | | | | mA |
| Typical Thermal Resistance per diode | R _{eJC} | 2 | | | | | | °C / W |
| Operating Junction Temperature Range | T _J | -55 to +125 -55 to +150 | | | | °C | | |
| Storage Temperature Range | T _{STG} | -55 to +150 | | | | | | °C |

Note:

Both Bonding and Chip structure are available.

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RATING AND CHARACTERISTIC CURVES

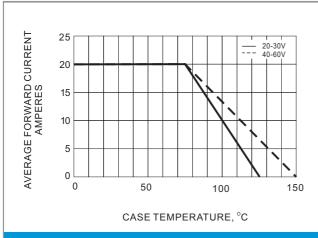


Fig. 1- FORWARD CURRENT DERATING CURVE

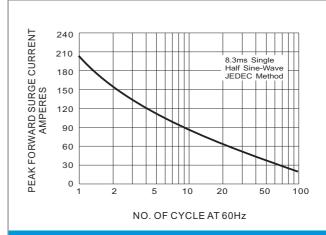


Fig.2- MAXIMUM NON - REPETITIVE SURGE CURRENT

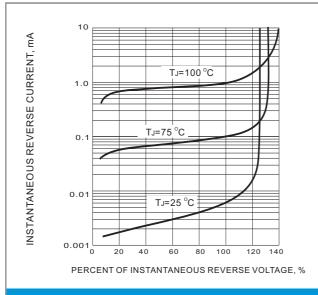


Fig.3-TYPICAL REVERSE CHARACTERISTIC

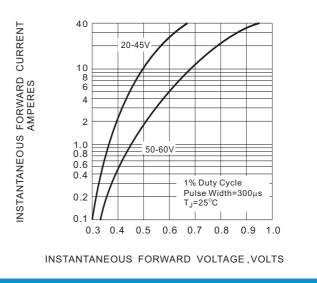


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

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