

# SB2520FCT~SB2560FCT

## SCHOTTKY BARRIER RECTIFIERS

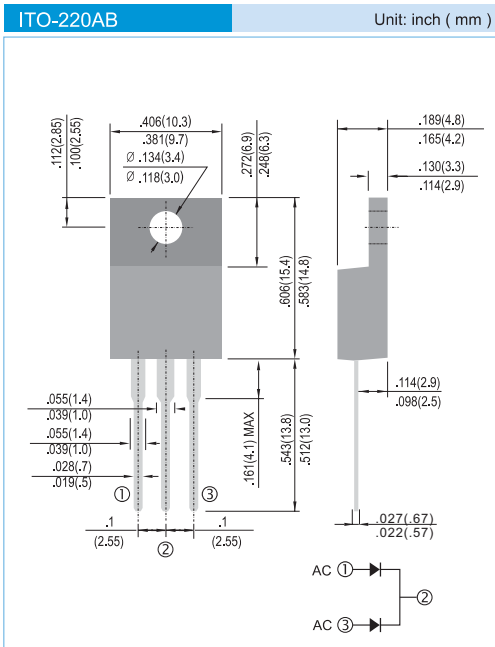
**VOLTAGE** 20 to 60 Volts **CURRENT** 25 Amperes

### 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 polarity protection applications.
- In compliance with EU RoHS 2002/95/EC directives

### MECHANICAL 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             | SB2520FCT   | SB2530FCT | SB2540FCT   | SB2545FCT  | SB2550FCT | SB2560FCT | UNITS  |
|--------------------------------------------------------------------------------------------------------|--------------------|-------------|-----------|-------------|------------|-----------|-----------|--------|
| Maximum Recurrent Peak Reverse Voltage                                                                 | V <sub>RRM</sub>   | 20          | 30        | 40          | 45         | 50        | 60        | V      |
| Maximum RMS Voltage                                                                                    | V <sub>RMS</sub>   | 14          | 21        | 28          | 31.5       | 35        | 42        | V      |
| Maximum DC Blocking Voltage                                                                            | V <sub>DC</sub>    | 20          | 30        | 40          | 45         | 50        | 60        | V      |
| Maximum Average Forward Current at Tc =75°C                                                            | I <sub>F(AV)</sub> | 25.0        |           |             |            |           |           | A      |
| Peak Forward Surge Current :8.3ms single half sine-wave superimposed on rated load(JEDEC method)       | I <sub>FSM</sub>   | 200         |           |             |            |           |           | A      |
| Maximum Forward Voltage at 12.5A, per leg                                                              | V <sub>F</sub>     | 0.55        |           |             |            | 0.75      |           | V      |
| Maximum DC Reverse Current T <sub>J</sub> =25 °C<br>at Rated DC Blocking Voltage T <sub>J</sub> =100°C | I <sub>R</sub>     | 0.2<br>100  |           |             | 0.1<br>100 |           |           | mA     |
| Typical Thermal Resistance                                                                             | R <sub>θJC</sub>   | 2           |           |             |            |           |           | °C / W |
| Operating Junction Temperature Range                                                                   | T <sub>J</sub>     | -55 to +125 |           | -55 to +150 |            |           |           | °C     |
| Storage Temperature Range                                                                              | T <sub>STG</sub>   | -55 to +150 |           |             |            |           |           | °C     |

### NOTES:

Both Bonding and Chip structure are available.

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## RATING AND CHARACTERISTIC CURVES

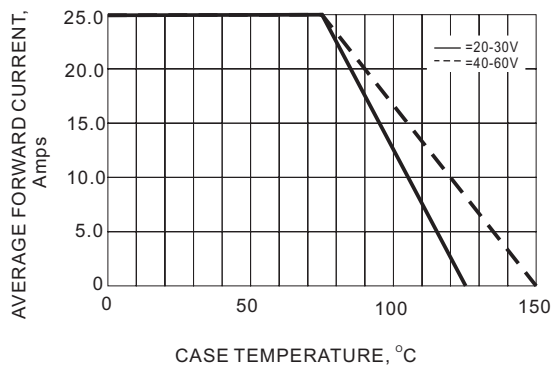


Fig.1- FORWARD CURRENT DERATING CURVE

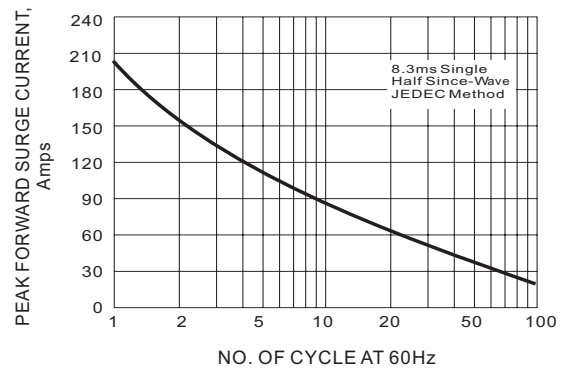


Fig.2- MAXIMUM NON - REPETITIVE SURGE CURRENT

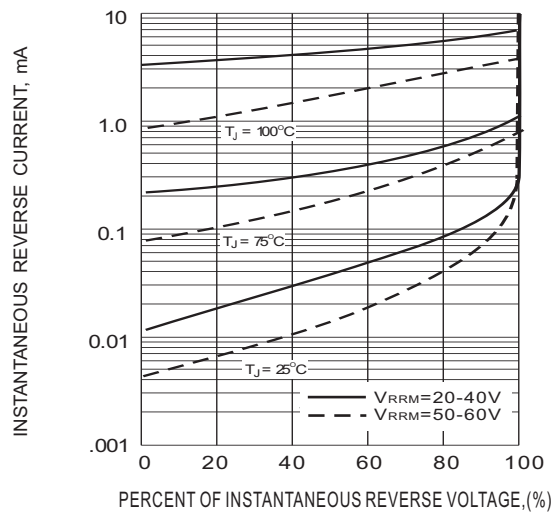


Fig.3- TYPICAL REVERSE CHARACTERISTICS

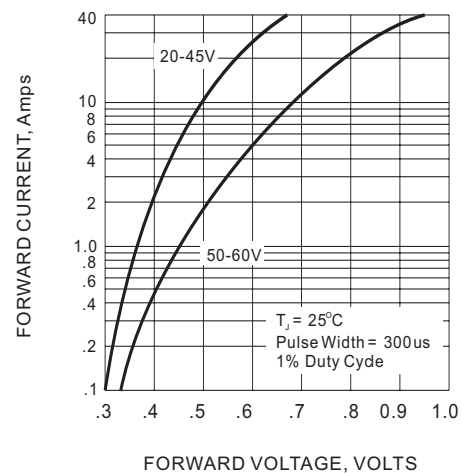


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS