

# DATA SHEET

## SB2520FCT~SB25100FCT

### ISOLATION SCHOTTKY BARRIER RECTIFIERS

**VOLTAGE- 20 to 100 Volts CURRENT - 25.0 Ampere**

**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.

#### MECHANICAL DATA

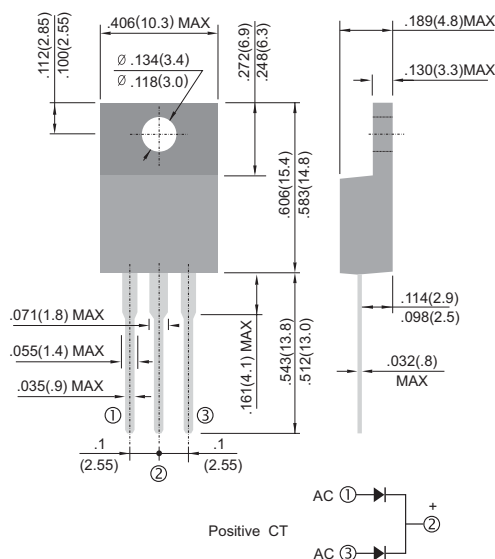
Case: ITO-220AB Molded plastic

Terminals: Solder plated, solderable per MIL-STD-202, 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.

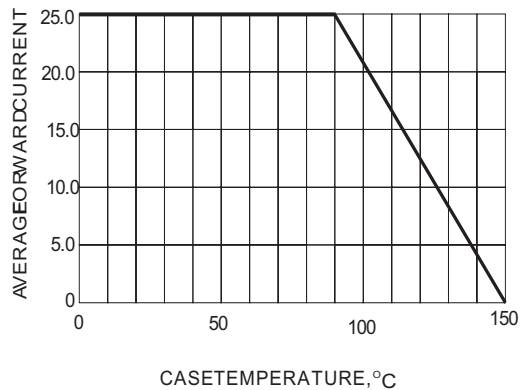
For capacitive load, derate current by 20%

|                                                                                                          | SB2520FCT   | SB2530FCT | SB2540FCT | SB2550FCT | SB2560FCT | SB2580FCT | SB25100FCT | UNIT |
|----------------------------------------------------------------------------------------------------------|-------------|-----------|-----------|-----------|-----------|-----------|------------|------|
| Maximum Recurrent Peak Reverse Voltage                                                                   | 20.0        | 30.0      | 40.0      | 50.0      | 60.0      | 80.0      | 100.0      | V    |
| Maximum RMS Voltage                                                                                      | 14.0        | 21.0      | 28.0      | 35.0      | 42.0      | 56.0      | 70.0       | V    |
| Maximum DC Blocking Voltage                                                                              | 20.0        | 30.0      | 40.0      | 50.0      | 60.0      | 80.0      | 100.0      | V    |
| Maximum Average Forward Rectified Current at Tc=90°C                                                     | 25          |           |           |           |           |           |            | A    |
| Peak Forward Surge Current,<br>8.3 ms single half sine-wave<br>superimposed on rated load (JEDEC method) | 200         |           |           |           |           |           |            | A    |
| Maximum Instantaneous Forward Voltage<br>at 12.5A per element                                            | 0.55        |           | 0.75      |           |           | 0.85      |            | V    |
| Maximum DC Reverse Current (Note 1) Ta=25°C<br>at Rated DC Blocking Voltage Ta=100°C                     | 0.5<br>100  |           |           |           |           |           |            | mA   |
| Typical Thermal Resistance Note RθJA                                                                     | 100         |           |           |           |           |           |            | °C/W |
| Operating and Storage Temperature Range T <sub>j</sub>                                                   | -50 to +125 |           |           |           |           |           |            | °C   |

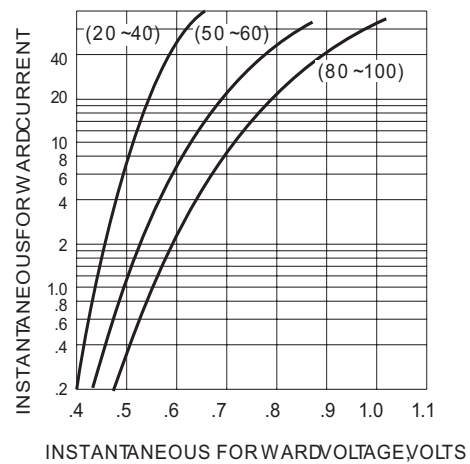
#### NOTES:

1. Thermal Resistance Junction to Ambient .

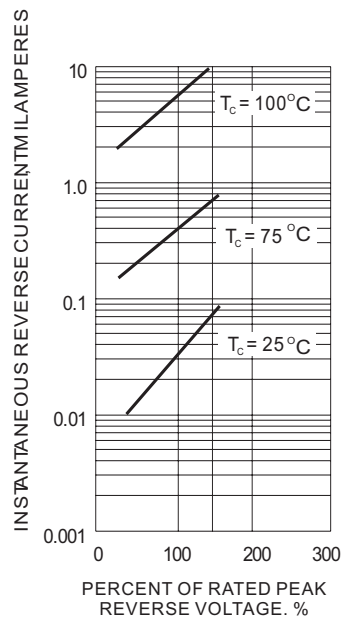
## RATING AND CHARACTERISTIC CURVES



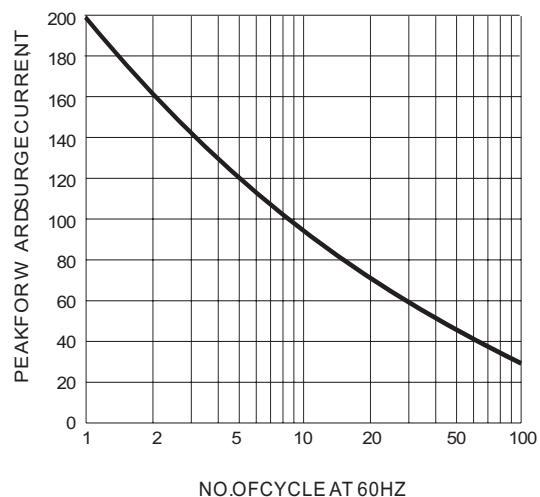
**Fig.1-FORWARD CURRENT DERATING CURVE**



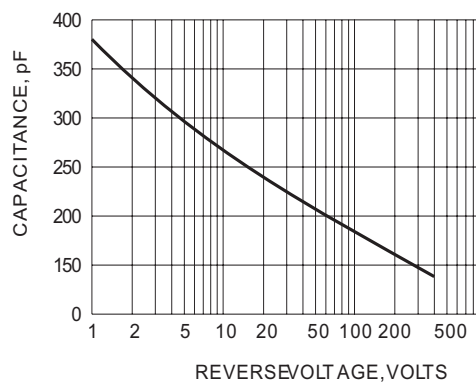
**Fig.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC**



**Fig.3-TYPICAL REVERSE CHARACTERISTIC**



**Fig.4 MAXIMUM NON-REPETITIVE SURGE CURRENT**



**Fig.5-TYPICAL JUNCTION CAPACITANCE**