

## SCHOTTKY BARRIER RECTIFIER

### Features

- ◆ High surge capacity.  
For use in low voltage, high frequency inverters, free
- ◆ wheeling, and polarity protection applications.  
Metal silicon junction, majority carrier conduction.
- ◆ High current capability, low forward voltage drop.
- ◆ Guard ring for over voltage protection.

### ITO-220AB

PIN



### Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

| Parameter                                                                                                     | SYMBOLS           | MBRF<br>1045CT | MBRF<br>1060CT | MBRF<br>10100CT | MBRF<br>10150CT | MBRF<br>10200CT | UNITS |
|---------------------------------------------------------------------------------------------------------------|-------------------|----------------|----------------|-----------------|-----------------|-----------------|-------|
| Marking Code                                                                                                  |                   |                |                |                 |                 |                 |       |
| Maximum repetitive peak reverse voltage                                                                       | V <sub>RRM</sub>  | 45             | 60             | 100             | 150             | 200             | V     |
| Maximum RMS voltage                                                                                           | V <sub>RMS</sub>  | 32             | 42             | 70              | 135             | 140             | V     |
| Maximum DC blocking voltage                                                                                   | V <sub>DC</sub>   | 45             | 60             | 100             | 150             | 200             | V     |
| Maximum average forward rectified current (see fig.1)                                                         | I <sub>(AV)</sub> | 10.0           |                |                 |                 |                 | A     |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)              | I <sub>FSM</sub>  | 150            |                |                 | 125             |                 | A     |
| Maximum instantaneous forward voltage at 5.0A                                                                 | V <sub>F</sub>    | 0.60           | 0.75           | 0.85            | 0.95            |                 | V     |
| Maximum DC reverse current      T <sub>A</sub> =25℃<br>at rated DC blocking voltage      T <sub>A</sub> =100℃ | I <sub>R</sub>    | 1.0            |                |                 | 0.1             |                 | mA    |
|                                                                                                               |                   | 15.0           | 50.0           |                 | 15.0            |                 |       |
| Typical thermal resistance (NOTE 2)                                                                           | R <sub>θJC</sub>  | 2.0            |                |                 | 1.5             |                 | ℃/W   |
| Operating junction temperature range                                                                          | T <sub>J</sub>    | -55 to +150    |                |                 |                 |                 | ℃     |
| storage temperature range                                                                                     | T <sub>STG</sub>  | -55 to +150    |                |                 |                 |                 | ℃     |

Note:2.Thermal resistance from junction to case.

## Ratings And Characteristic Curves

Fig.1 Typical Forward Current Derating Curve

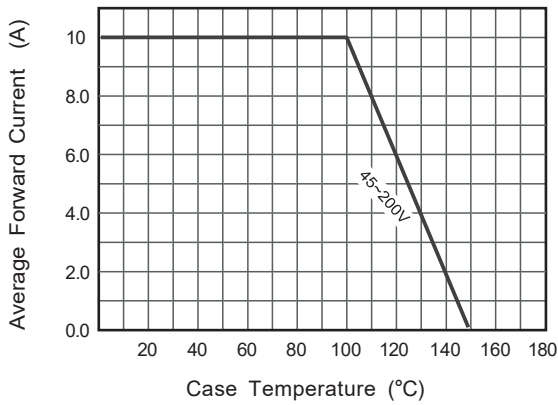


Fig.2 Typical Reverse Characteristics

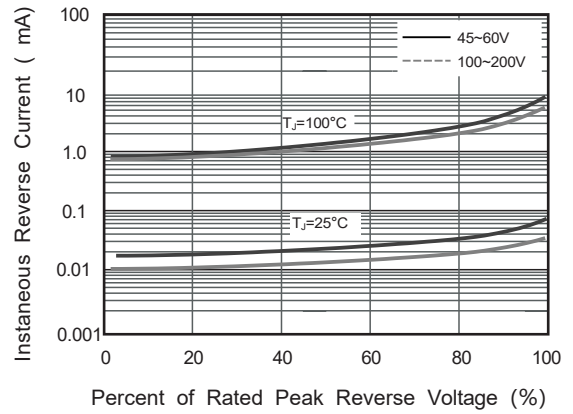


Fig.3 Typical Forward Characteristic(per leg)

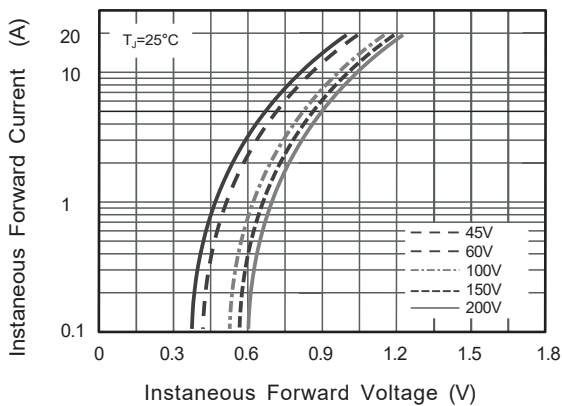
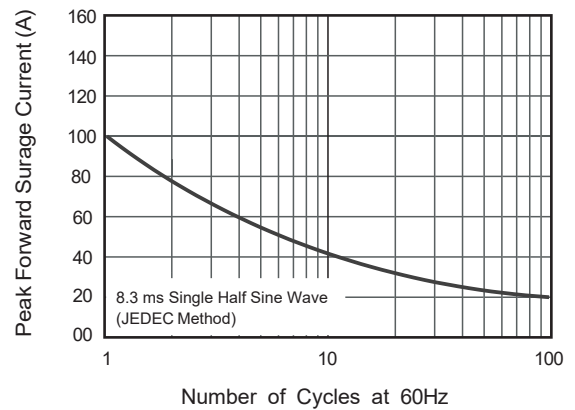


Fig.4 Maximum Non-Repetitive Peak Forward Surge Current



The curve above is for reference only.