



# MBR2540FCT~MBR25200FCT

## SCHOTTKY BARRIER RECTIFIERS

**VOLTAGE** 40 to 200 Volts **CURRENT** 25 Amperes

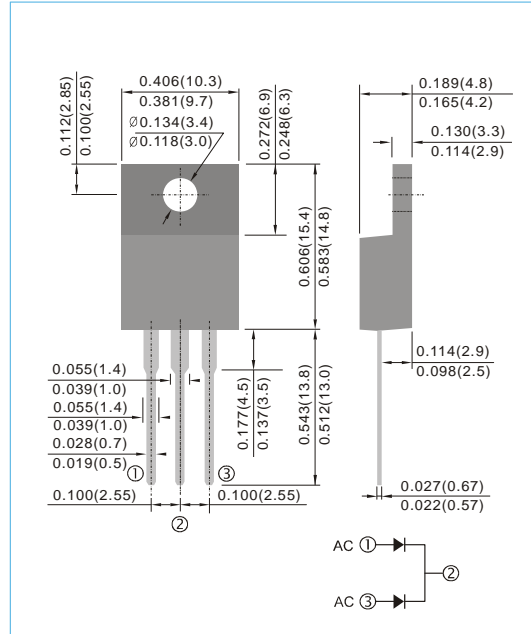
**ITO-220AB** Unit : inch(mm)

### 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.
- Lead free in comply with EU RoHS 2002/95/EC directives.

### MECHANICAL DATA

- Case: ITO-220AB 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          | MBR2540FCT  | MBR2545FCT | MBR2550FCT | MBR2560FCT | MBR2580FCT | MBR2590FCT | MBR25100FCT | MBR25150FCT | MBR25200FCT | UNITS                       |
|--|-----------------|-------------|------------|------------|------------|------------|------------|-------------|-------------|-------------|-----------------------------|
| Maximum Recurrent Peak Reverse Voltage   | $V_{RRM}$       | 40          | 45         | 50         | 60         | 80         | 90         | 100         | 150         | 200         | V                           |
| Maximum RMS Voltage  | $V_{RMS}$       | 28          | 31.5       | 35         | 42         | 56         | 63         | 70          | 105         | 140         | V                           |
| Maximum DC Blocking Voltage  | $V_{DC}$        | 40          | 45         | 50         | 60         | 80         | 90         | 100         | 150         | 200         | V                           |
| Maximum Average Forward Current (See fig.1)  | $I_{F(AV)}$     | 25          |            |            |            |            |            |             |             |             | A                           |
| Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load (JEDEC method)     | $I_{FSM}$       | 200         |            |            |            |            |            |             |             |             | A                           |
| Maximum Forward Voltage at 12.5A, per leg  | $V_F$           | 0.7         |            | 0.75       |            | 0.8        |            | 0.9         |             |             | V                           |
| Maximum DC Reverse Current $T_j=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_j=125^\circ\text{C}$ | $I_R$           |             |            |            |            | 0.05       |            |             |             |             | mA                          |
| Typical Thermal Resistance   | $R_{\theta JC}$ |             |            |            |            | 2          |            |             |             |             | $^\circ\text{C} / \text{W}$ |
| Operating Junction and Storage Temperature Range   | $T_J, T_{STG}$  | -50 to +150 |            |            |            |            |            |             |             | -65 to +175 | $^\circ\text{C}$            |

#### NOTES:

Both Bonding and Chip structure are available.



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## RATING AND CHARACTERISTIC CURVES

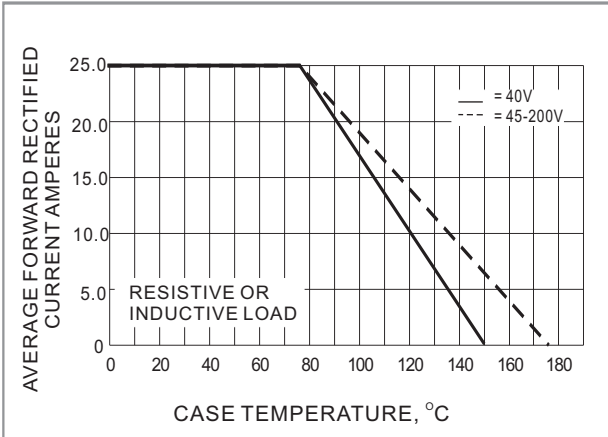


Fig. 1- FORWARD CURRENT DERATING CURVE

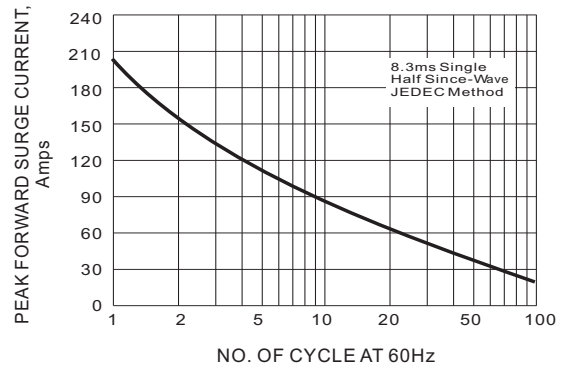


Fig. 2- MAXIMUM NON-REPETITIVE SURGE CURRENT

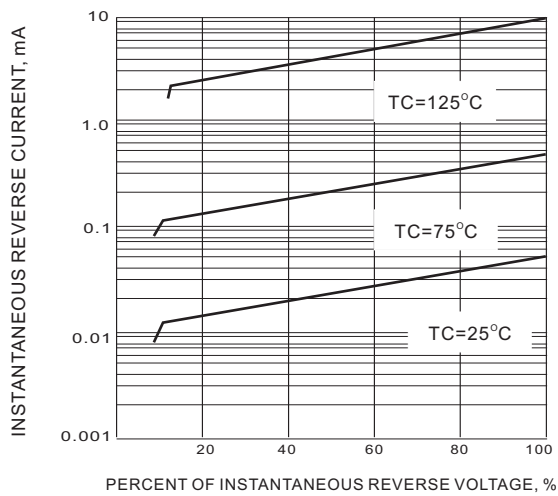


Fig. 3- TYPICAL REVERSE CHARACTERISTICS

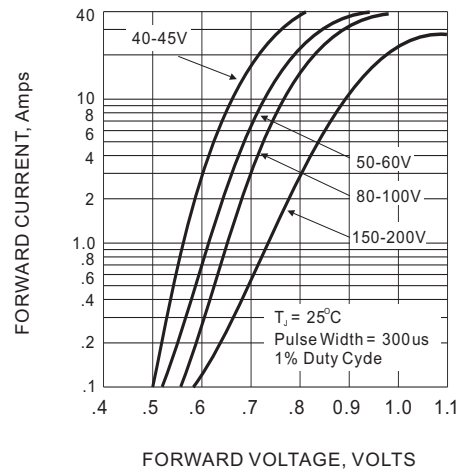


Fig. 4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS