



**TAYCHIPST**

**SCHOTTKY BARRIER RECTIFIERS**

**MBR240 THRU MBR2200**

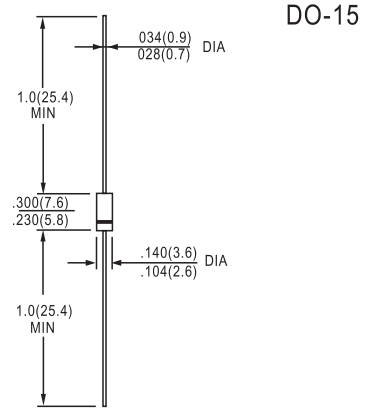
**40V-200V 2.0A**

**FEATURES**

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound.
- Exceeds environmental standards of MIL-S-19500/228
- 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: DO-15 Molded plastic
- Terminals: Axial leads, solderable per MIL-STD-750,Method 2026
- Polarity: Color band denotes cathode
- Mounting Position: Any
- Weight: 0.014 ounces, 0.397 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.

| PARAMETER   | SYMBOL          | MBR240      | MBR245 | MBR250 | MBR260 | MBR280      | MBR290 | MBR2100 | MBR2150 | MBR2200 | 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 Rectified Current<br>.375"(9.5mm) lead length (see fig1)                  | $I_{F(AV)}$     | 2.0         |        |        |        |             |        |         |         |         | A      |
| Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load(JEDEC method) | $I_{FSM}$       | 50          |        |        |        |             |        |         |         |         | A      |
| Typical Thermal Resistance (Note 2)   | $R_{\theta JA}$ | 35          |        |        |        |             |        |         |         |         | °C / W |
| Maximum Forward Voltage at 2.0A (Note 1)  | $V_F$           | 0.7         |        | 0.74   |        | 0.8         |        | 0.9     |         |         | V      |
| Maximum DC Reverse Current at $T_J=25^{\circ}C$<br>Rated DC Blocking Voltage $T_J=100^{\circ}C$   | $I_R$           | 0.05<br>20  |        |        |        |             |        |         |         |         | mA     |
| Operating Junctionand Storage Temperature Rang  | $T_J, T_{STG}$  | -55 to +150 |        |        |        | -65 to +175 |        |         |         |         | °C     |

NOTES:

- 1.Pulse Test : 300µs pulse with , 1% Duty Cycle.
- 2Thermal resistance junction to lead P.C.B mounted 0.375"(9.5mm) lead length.



RATINGS AND CHARACTERISTIC CURVES MBR240 THRU MBR2200

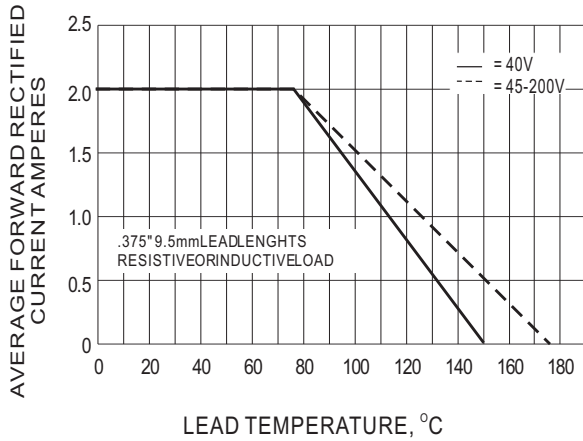


Fig.1- FORWARD CURRENT DERATING CURVE

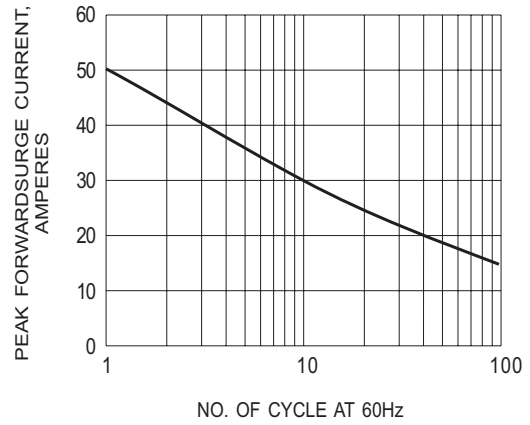


Fig.2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

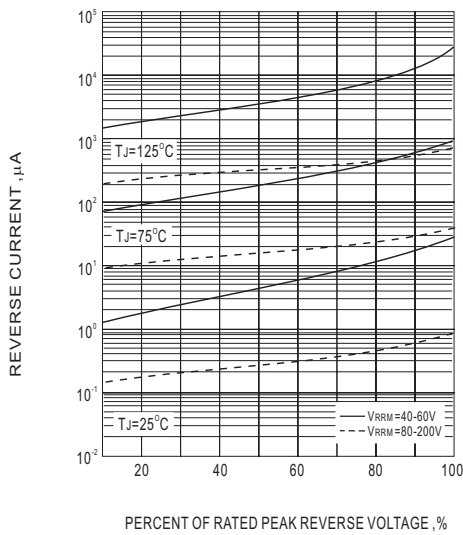


Fig.3- TYPICAL REVERSE CHARACTERISTIC

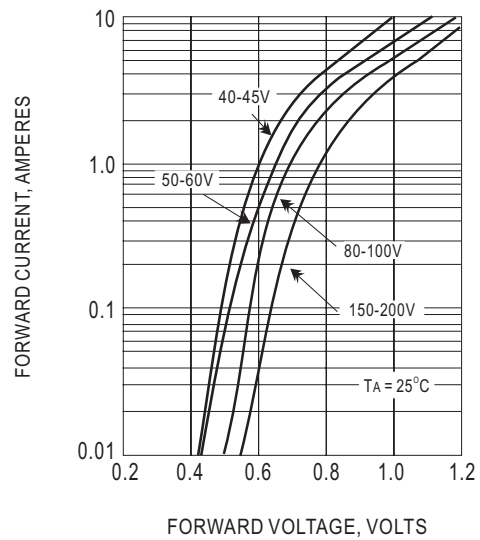


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC