



MBR2040 THRU MBR20200

Schottky Barrier Rectifiers

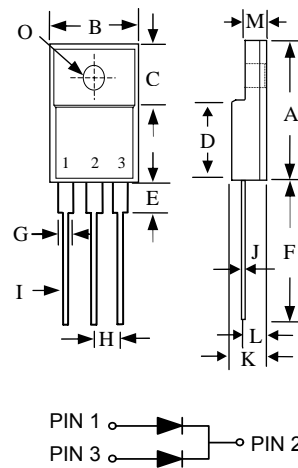
FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O. Flame Retardant Epoxy Molding Compound.
- Metal silicon junction, majority carrier conduction
- Low power loss, high efficiency.
- High current capability
- For use in low voltage, high frequency inverters free wheeling, and polarity protection applications.
- Lead free in comply with EU RoHS

MECHANICAL DATA

- Case: ITO-220AB molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: As marked.
- Mounting Position: Any

ITO- 220AB



| ITO-220AB | | |
|-----------|-------|-------|
| DIM. | MIN. | MAX. |
| A | 14.90 | 15.90 |
| B | 9.90 | 10.40 |
| C | 6.45 | 7.15 |
| D | 7.85 | 8.75 |
| E | 2.90 | 3.90 |
| F | 12.8 | — |
| G | 1.10 | 1.4 |
| H | 2.35 | 2.55 |
| I | 0.45 | 0.95 |
| J | 0.40 | 0.65 |
| K | 4.35 | 4.75 |
| L | 2.55 | 3.15 |
| M | 2.60 | 3.10 |
| O | ∅3.00 | ∅3.50 |

All Dimensions in millimeter

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 | MBR 2040 | MBR 2045 | MBR 2050 | MBR 2060 | MBR 2080 | MBR 20100 | MBR 20150 | MBR 20200 | UNITS | |
|---|-----------------|-------------|----------|----------|----------|------------|-----------|-----------|-------------|-----------------------------|------------------|
| Maximum Recurrent Peak Reverse Voltage | V_{RRM} | 40 | 45 | 50 | 60 | 80 | 100 | 150 | 200 | V | |
| Maximum RMS Voltage | V_{RMS} | 28 | 31.5 | 35 | 42 | 56 | 70 | 105 | 140 | V | |
| Maximum DC Blocking Voltage | V_{DC} | 40 | 45 | 50 | 60 | 80 | 100 | 150 | 200 | V | |
| Maximum Average Forward Current (See fig.1) | $I_{F(AV)}$ | 20 | | | | | | | | A | |
| Peak Forward Surge Current :8.3ms single half sine-wave superimposed on rated load(JEDEC method) | I_{FSM} | 150 | | | | | | | | A | |
| Maximum Forward Voltage at 10A, per leg | V_F | 0.65 | | 0.75 | | 0.85 | | 0.92 | | 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 20 | | | | 0.02 20 | | | | 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 | | | | | | | -55 to +175 | | $^\circ\text{C}$ |





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Characteristic Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)

Fig.1- FORWARD CURRENT DERATING CURVE

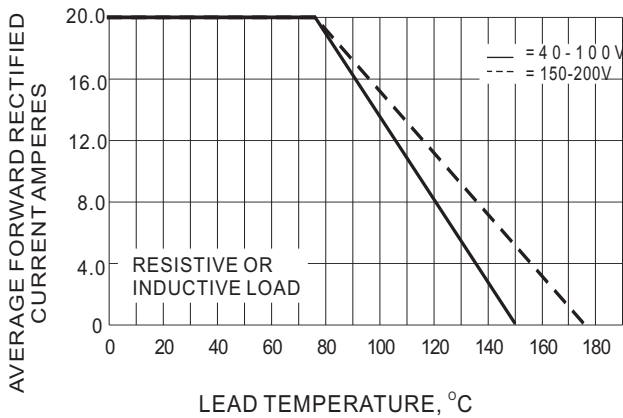


Fig.2- MAXIMUM NON - REPETITIVE SURGE CURRENT

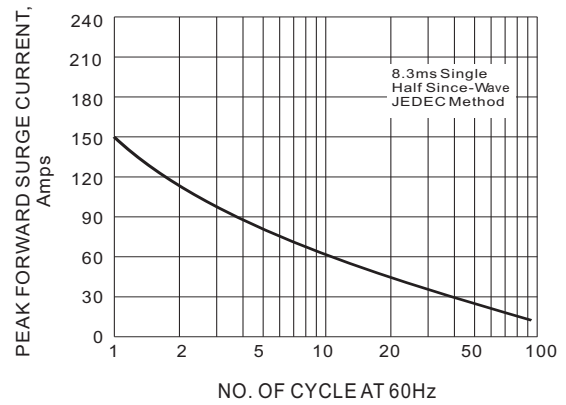


Fig.3- TYPICAL REVERSE CHARACTERISTICS

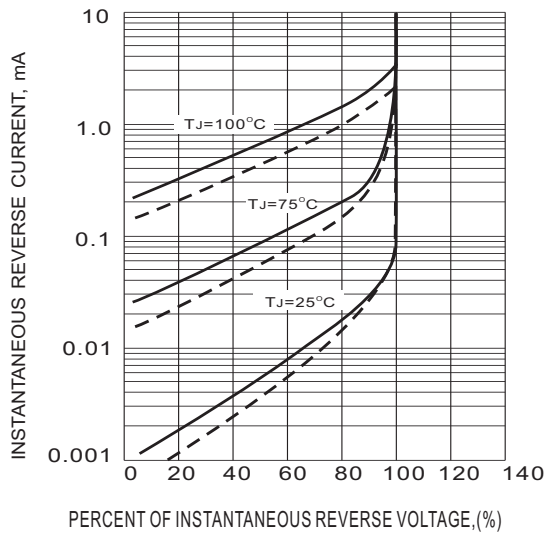


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

