

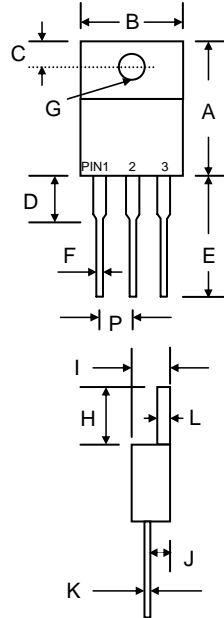
Features

- Schottky Barrier Chip
- Ideally Suited for Automatic Assembly
- Low Power Loss, High Efficiency
- For Use in Low Voltage Application
- Guard Ring Die Construction
- Plastic Case Material has UL Flammability Classification Rating 94V-O

Mechanical Data

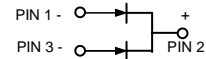
- Case: ITO-220AB, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: See Diagram
- Mounting Position: Any
- **Lead Free: For RoHS / Lead Free Version**

ITO-220AB



| ITO-220AB | | |
|-----------|--------|--------|
| Dim | Min | Max |
| A | 14.50 | 15.50 |
| B | 9.50 | 10.50 |
| C | 2.55 | 2.90 |
| D | 3.30 | 4.30 |
| E | 13.00 | 14.00 |
| F | 0.30 | 0.90 |
| G | 3.00 Ø | 3.80 Ø |
| H | 6.30 | 7.30 |
| I | 4.20 | 4.80 |
| J | 2.50 | 2.90 |
| K | 0.45 | 0.70 |
| L | 2.50 | 3.10 |
| P | 2.35 | 2.75 |

All Dimensions in mm



Maximum Ratings and Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

| Characteristic | Symbol | MBRF 1040 CT | MBRF 1045 CT | MBRF 1050 CT | MBRF 1060 CT | MBRF 10100 CT | MBRF 10150 CT | MBRF 10200 CT | Units | |
|---|---------------------------------|--------------|--------------|--------------|--------------|---------------|---------------|---------------|--------------------|------------------|
| Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage | V_{RRM} V_{RWM} V_R | 40 | 45 | 50 | 60 | 100 | 150 | 200 | V | |
| RMS Reverse Voltage | $V_{R(RMS)}$ | 28 | 31 | 35 | 42 | 70 | 105 | 140 | V | |
| Average Rectified Output Current @ $T_L = 75^\circ\text{C}$ (Note 1) | I_O | 10.0 | | | | | | | A | |
| Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | 100 | | | | 110 | | | A | |
| Forward Voltage @ $I_F = 5\text{A}$ | V_{FM} | 0.70 | 0.80 | | 0.85 | | 0.92 | | V | |
| Peak Reverse Current @ $T_A = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$ | I_{RM} | 0.1 | | | | 20 | | | mA | |
| Typical Junction Capacitance (Note 2) | C_j | 350 | | 280 | | 200 | | | pF | |
| Typical Thermal Resistance (Note 1) | $R_{\theta JA}$ | 3.0 | | | | 2.0 | | | $^\circ\text{C/W}$ | |
| Operating and Storage Temperature Range | T_j, T_{STG} | -55 to +150 | | | | | -55 to +175 | | | $^\circ\text{C}$ |

Note: 1. Valid provided that leads are kept at ambient temperature at a distance of 9.5mm from the case.
2. Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

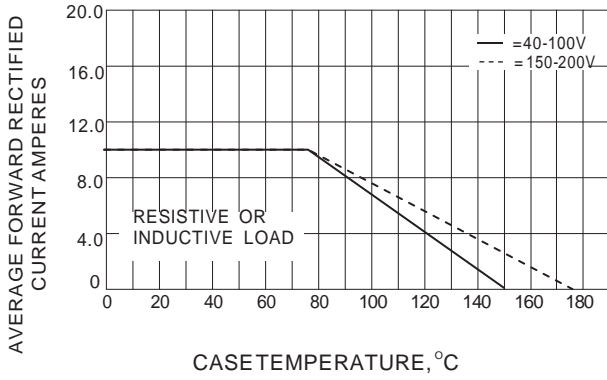


Fig.1 - FORWARD CURRENT DERATING CURVE

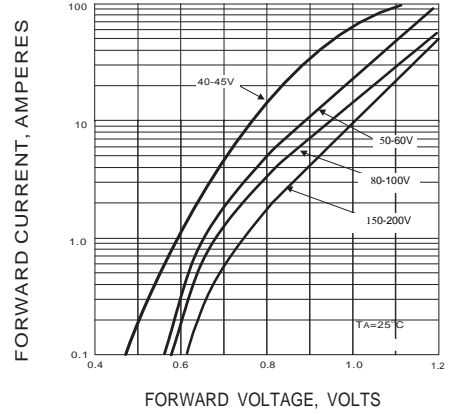


Fig.2 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

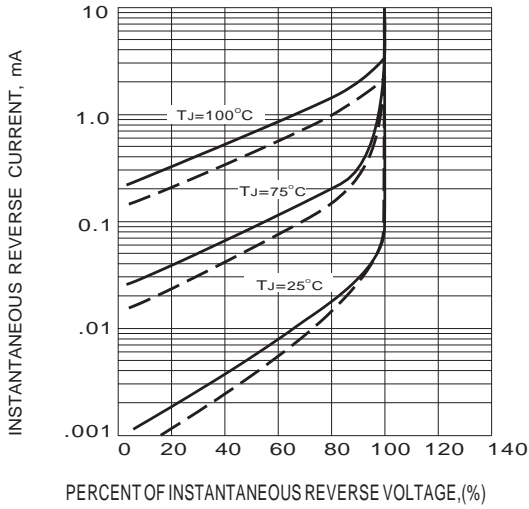


Fig.3 - TYPICAL REVERSE CHARACTERISTICS

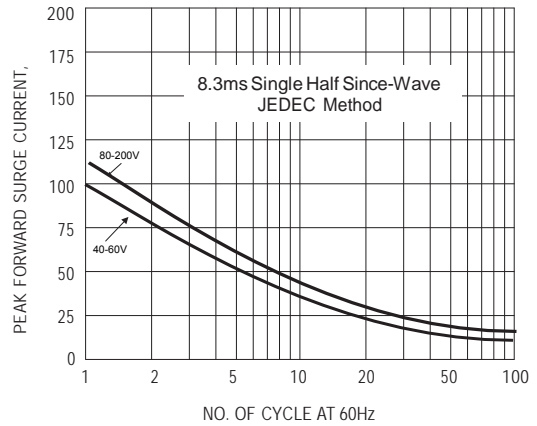


Fig.4 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS