

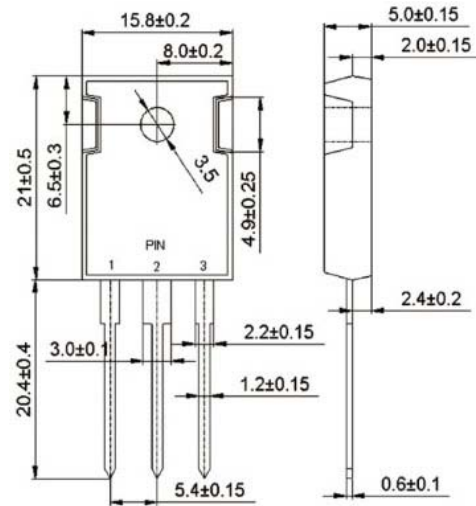
Features

- 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: TO-247AD/TO-3P, 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**

TO-247AD/TO-3P



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 | MBR 3040 PT | MBR 3045 PT | MBR 3050 PT | MBR 3060 PT | MBR 30100 PT | MBR 30150 PT | MBR 30200 PT | Unit |
|---|-----------------|-------------|-------------|-------------|-------------|--------------|--------------|--------------|--------------------|
| Peak Repetitive Reverse Voltage | V_{RRM} | | | | | | | | |
| Working Peak Reverse Voltage | V_{RWM} | 40 | 45 | 50 | 60 | 100 | 150 | 200 | V |
| DC Blocking Voltage | V_R | | | | | | | | |
| 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 | 30 | | | | | | | A |
| Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | 275 | | | | | | | A |
| Forward Voltage @ $I_F = 15\text{A}$ | V_{FM} | 0.70 | | 0.75 | | 0.80 | | 0.90 | V |
| Peak Reverse Current @ $T_A = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$ | I_{RM} | 0.2 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 | | | | | | | $^\circ\text{C}$ |

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.

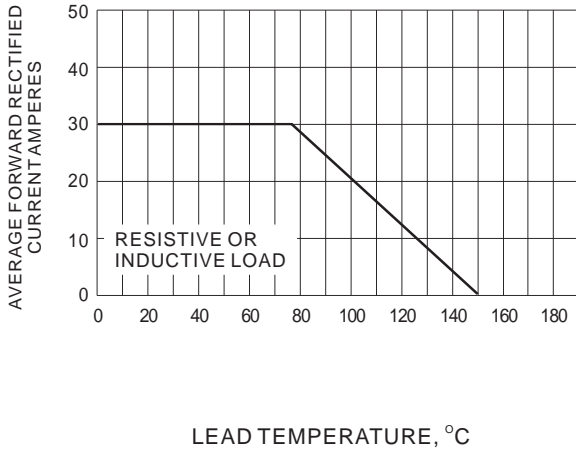


Fig.1- FORWARD CURRENT DERATING CURVE

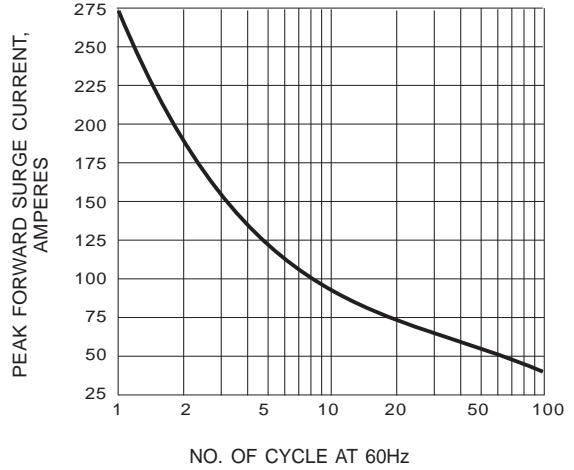


Fig.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

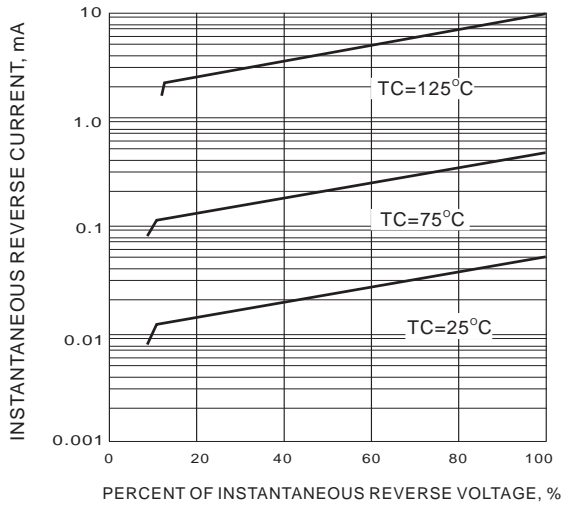


Fig.3- TYPICAL REVERSE CHARACTERISTIC

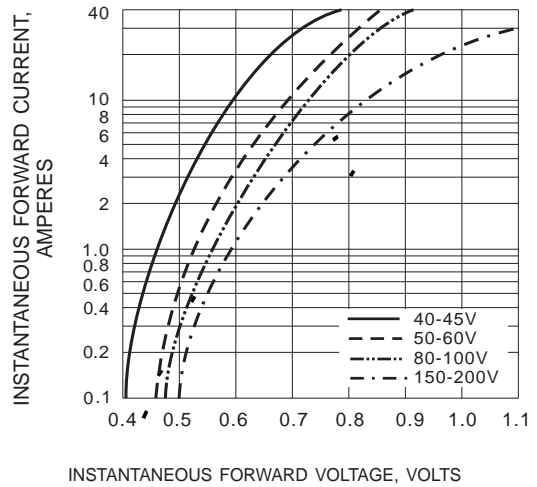


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC