



MBR840DC~MBR8200DC

D²PAK SURFACE MOUNTSCHOTTKY BARRIER RECTIFIER

VOLTAGE 40 to 200 Volts **CURRENT** 8 Ampere

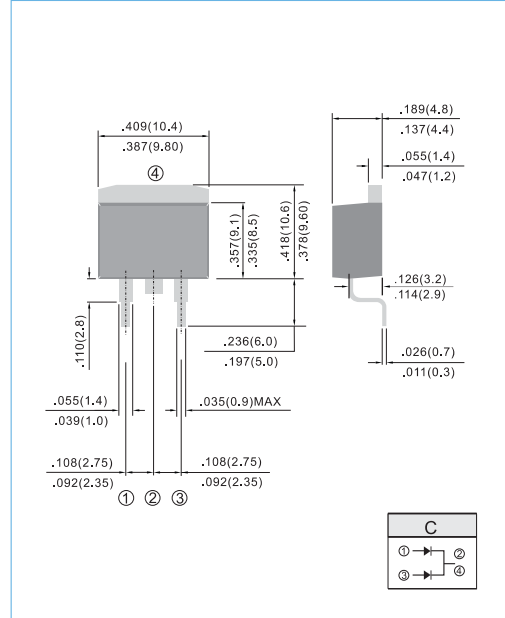
TO-263 / D²PAK Unit: inch (mm)

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing 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.
- In compliance with EU RoHS 2002/95/EC directives

MECHANICALDATA

- Case: TO-263/D²PAK molded plastic package
- Terminals: Lead solderable per MIL-STD-750, Method 2026
- Polarity: As marked.
- Mounting Position: Any
- Weight: 0.0514 ounces, 1.46 grams.



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Resistive or inductive load.

| PARAMETER | SYMBOL | MBR840DC | MBR845DC | MBR850DC | MBR860DC | MBR880DC | MBR890DC | MBR8100DC | MBR8150DC | MBR8200DC | 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 (See Figure 1) | $I_{F(AV)}$ | 8 | | | | | | | | | 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 4.0A | V_F | 0.70 | | 0.75 | | 0.80 | | 0.90 | | | V |
| Maximum DC Reverse Current $T_J=25^{\circ}C$ at Rated DC Blocking Voltage $T_J=100^{\circ}C$ | I_R | | | | | 0.05 | | 20 | | | mA |
| Typical Thermal Resistance | $R_{\theta JC}$ | | | | | 3 | | | | | $^{\circ}C / W$ |
| Operating Junction and Storage Temperature Range | T_J, T_{STG} | -55 to +150 | | | | -65 to +175 | | | | | $^{\circ}C$ |

NOTES : Both Bonding and Chip structure are available.



MBR840DC~MBR8200DC

RATING AND CHARACTERISTIC CURVES

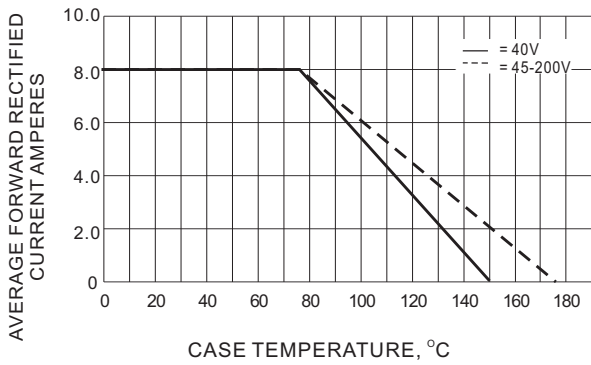


Fig.1- FORWARD CURRENT DERATING CURVE

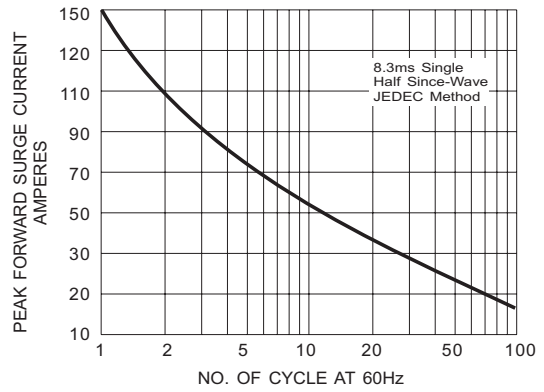


Fig.2- MAXIMUM NON-REPETITIVE SURGE CURRENT

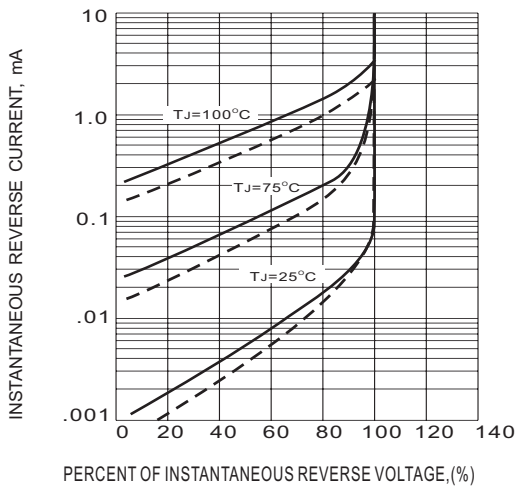


Fig.3- TYPICAL REVERSE CHARACTERISTICS

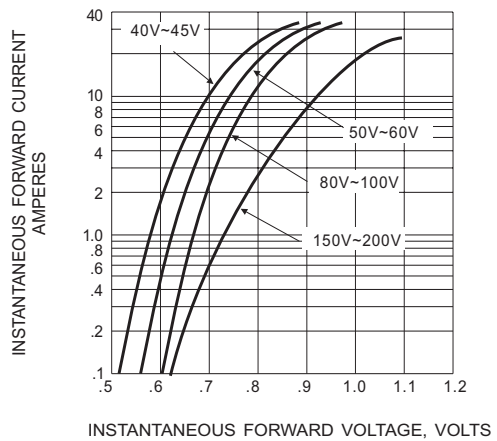


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

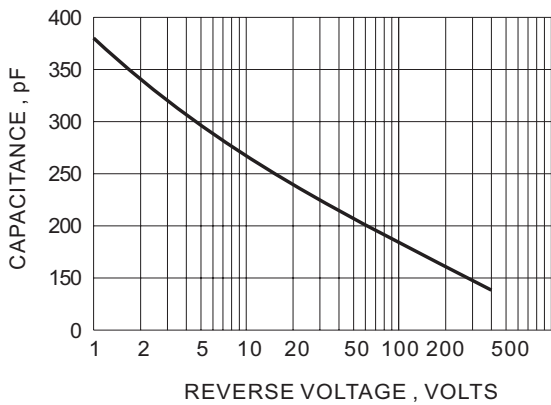
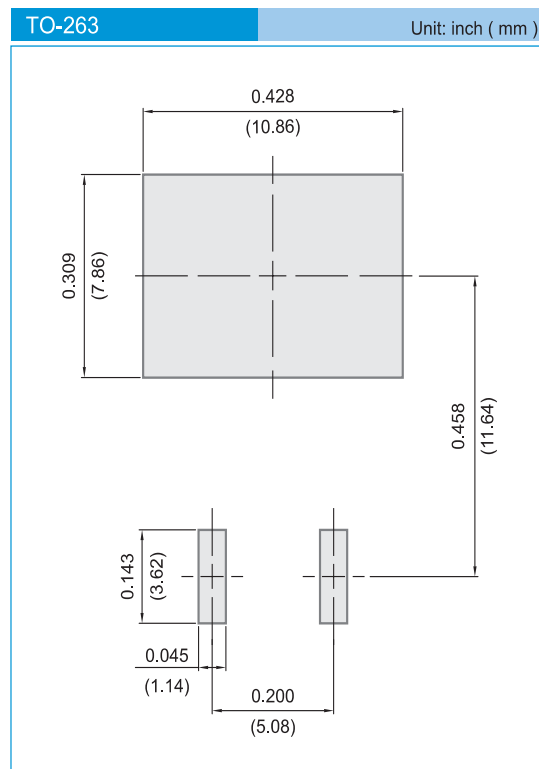


Fig.5-TYPICAL JUNCTION CAPACITANCE



MOUNTING PAD LAYOUT



ORDER INFORMATION

- Packing information
T/R - 0.8K per 13" plastic Reel

LEGAL STATEMENT

Copyright PanJit International, Inc 2011

The information presented in this document is believed to be accurate and reliable. The specifications and information herein are subject to change without notice. Pan Jit makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose. Pan Jit products are not authorized for use in life support devices or systems. Pan Jit does not convey any license under its patent rights or rights of others.