

# MBR840FCT~MBR8200FCT

## SCHOTTKY BARRIER RECTIFIER

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

### FEATURES

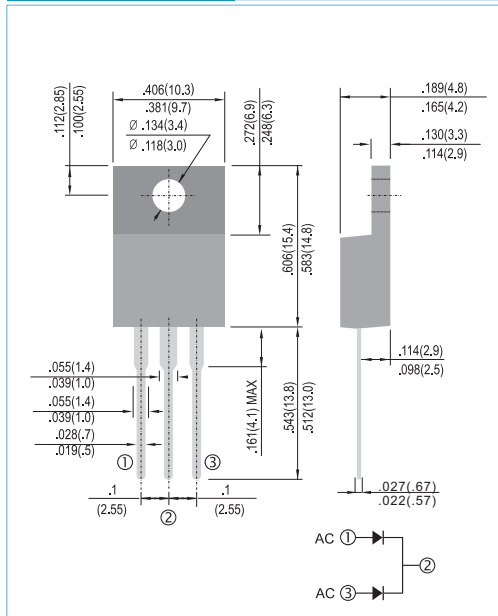
- Plastic package has Underwriters Laboratory Flammability Classification 94V-O utilizing Flame Retardant Epoxy Molding Compound.
- Exceeds environmental standards of MIL-S-19500/228
- Low power loss, high efficiency.
- Low forward voltage, high current capability
- High surge capacity.
- For use in low voltage, high frequency inverters free wheeling, and polarity protection applications.
- In compliance with EU RoHS 2002/95/EC directives

### MECHANICAL DATA

- Case: ITO-220AB molded plastic package
- Terminals: Lead solderable per MIL-STD-750, Method 2026
- Polarity: As marked.
- Mounting Position: Any
- Weight: 0.055 ounces, 1.5615 grams.

ITO-220AB

Unit: inch ( mm )



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

| PARAMETER                                                                                             | SYMBOL                           | MBR840FCT   | MBR845FCT   | MBR850FCT | MBR860FCT | MBR880FCT | MBR890FCT | MBR8100FCT | MBR8150FCT | MBR8200FCT | UNITS  |
|-------------------------------------------------------------------------------------------------------|----------------------------------|-------------|-------------|-----------|-----------|-----------|-----------|------------|------------|------------|--------|
| Maximum Recurrent Peak Reverse Voltage                                                                | V <sub>RRM</sub>                 | 40          | 45          | 50        | 60        | 80        | 90        | 100        | 150        | 200        | V      |
| Maximum RMS Voltage                                                                                   | V <sub>RMS</sub>                 | 28          | 31.5        | 35        | 42        | 56        | 63        | 70         | 105        | 140        | V      |
| Maximum DC Blocking Voltage                                                                           | V <sub>DC</sub>                  | 40          | 45          | 50        | 60        | 80        | 90        | 100        | 150        | 200        | V      |
| Maximum Average Forward (See Figure 1)                                                                | I <sub>F(AV)</sub>               | 8           |             |           |           |           |           |            |            |            | A      |
| Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load(JEDEC method)     | I <sub>FSM</sub>                 | 150         |             |           |           |           |           |            |            |            | A      |
| Maximum Forward Voltage at 4.0A                                                                       | V <sub>F</sub>                   | 0.70        |             | 0.75      |           | 0.80      |           |            | 0.90       |            | V      |
| Maximum DC Reverse Current T <sub>J</sub> =25°C<br>at Rated DC Blocking Voltage T <sub>J</sub> =100°C | I <sub>R</sub>                   | 0.05        |             |           |           |           | 20        |            |            |            | mA     |
| Typical Thermal Resistance                                                                            | R <sub>θJC</sub>                 | 3           |             |           |           |           |           |            |            |            | °C / W |
| Operating Junction and Storage Temperature Range                                                      | T <sub>J</sub> ,T <sub>STG</sub> | -55 to +150 | -65 to +175 |           |           |           |           |            |            |            | °C     |

NOTES : Both Bonding and Chip structure are available.

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### RATING AND CHARACTERISTIC CURVES

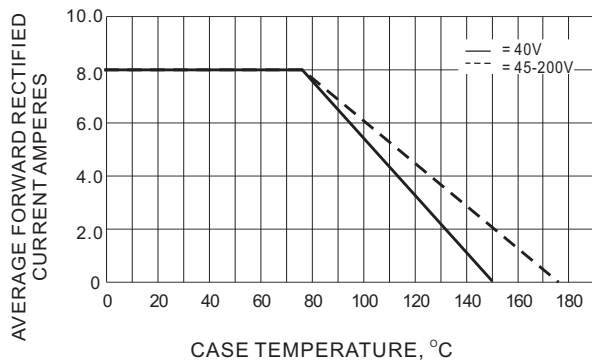


Fig.1- FORWARD CURRENT DERATING CURVE

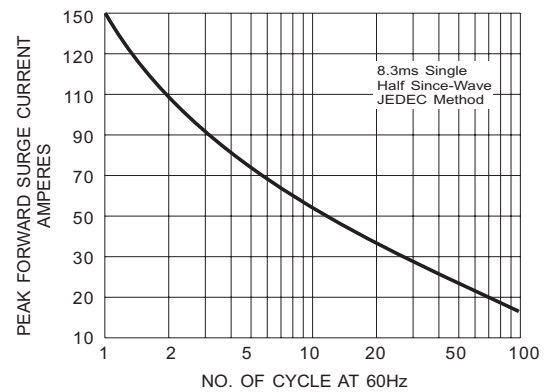


Fig.2- MAXIMUM NON - REPETITIVE SURGE CURRENT

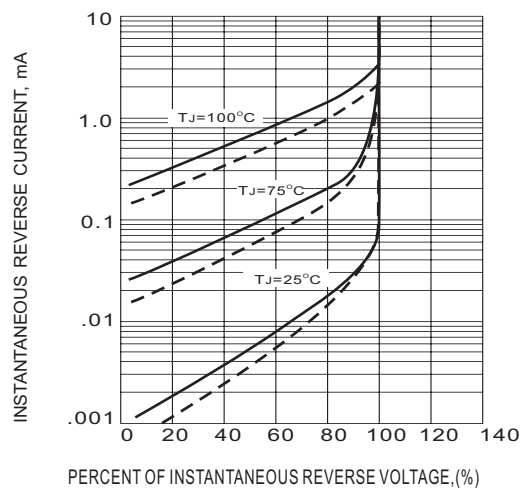


Fig.3- TYPICAL REVERSE CHARACTERISTICS

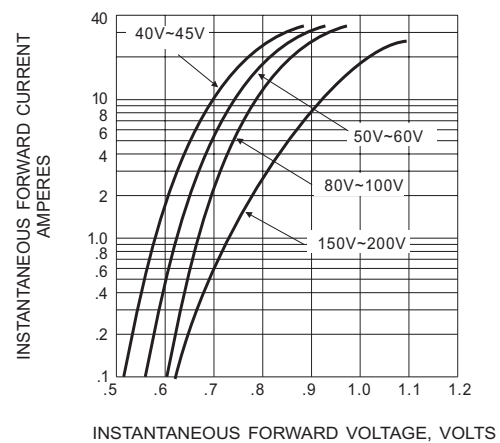


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS