



20 AMPERES SCHOTTKY BARRIER RECTIFIERS

VOLTAGE 40 to 200 Volt CURRENT 20 Ampere

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O.
 Flame Retardant Epoxy Molding Compound.
- Low power loss, high efficiency.
- · High current capability
- For use in low voltage, high frequency inverters free wheeling, and polarlity protection applications.
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

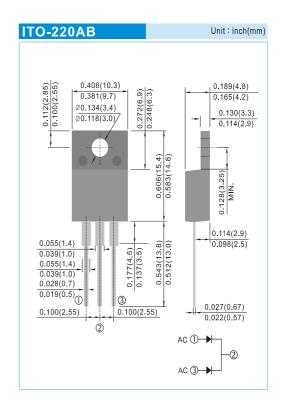
MECHANICAL DATA

• Case: ITO-220AB molded plastic

• Terminals: solder plated, solderable per MIL-STD-750, Method 2026

· Polarity: As marked.

• Weight: 0.056 ounces, 1.6 grams



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 | MBR2040FCT | MBR2045FCT | MBR2050FCT | MBR2060FCT | MBR2080FCT | MBR2090FCT | MBR20100FCT | MBR20150FCT | MBR20200FCT | UNITS |
|---|----------------------------------|-------------------------|------------------|------------|------------|------------|------------|-------------|-------------|-------------|-------|
| Maximum Recurrent Peak Reverse Voltage | V _{RRM} | 40 | 45 | 50 | 60 | 80 | 90 | 100 | 150 | 200 | ٧ |
| Maximum RMS Voltage | V _{RMS} | 28 | 31.5 | 35 | 42 | 56 | 63 | 70 | 105 | 140 | V |
| Maximum DC Blocking Voltage | Vpc | 40 | 45 | 50 | 60 | 80 | 90 | 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 | I _{FSM} | 200 | | | | | | A | | | |
| Maximum Forward Voltage at 10A, per leg | V _F | 0 | 0.7 0.75 0.8 0.9 | | | 1.9 | V | | | | |
| Maximum DC Reverse Current at Rated DC T _J =25°C Blocking Voltage T _J =125°C | I _R | 0.05 20 | | | | | | mA | | | |
| Typical Thermal Resistance | R _{eJC} | 2 | | | | | | °C / W | | | |
| Operating and Storage Junction Temperature Range | T _J ,T _{STG} | -55 to +150 -65 to +175 | | | | | | | °C | | |

Notes:

Both Bonding and Chip structure are available.





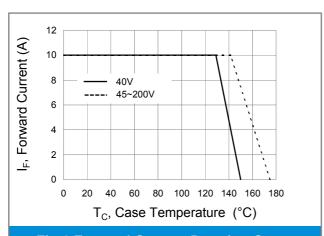


Fig.1 Forward Current Derating Curve

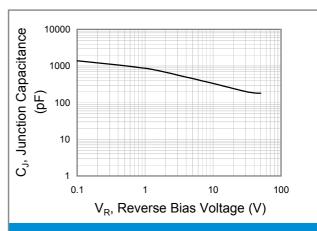


Fig.2 Typical Junction Capacitance

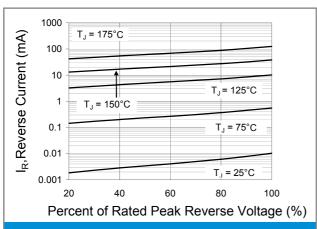


Fig.3 Typical Reverse Characteristics

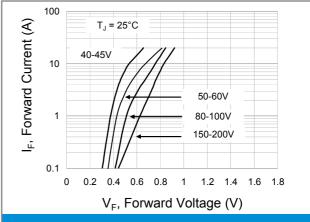


Fig.4 Typical Forward Characteristics

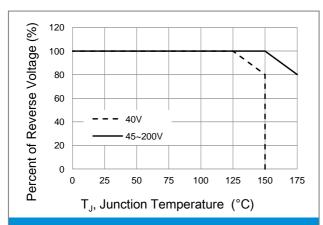


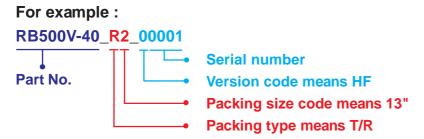
Fig.5 Operating Temperature Derating Curve





Part No_packing code_Version

MBR2040FCT_T0_00001



| Packing Code XX | | | | | Version Code XXXXX | | | |
|--------------------------------------|----------------------|-----------------------------------|----------------------|------------|----------------------|---------------------------------------|--|--|
| Packing type | 1 st Code | Packing size code | 2 nd Code | HF or RoHS | 1 st Code | 2 nd ~5 th Code | | |
| Tape and Ammunition Box (T/B) | Α | N/A | 0 | HF | 0 | serial number | | |
| Tape and Reel (T/R) | R | 7" | 1 | RoHS | 1 | serial number | | |
| Bulk Packing (B/P) | В | 13" | 2 | | | | | |
| Tube Packing (T/P) | Т | 26mm | X | | | | | |
| Tape and Reel (Right Oriented) (TRR) | S | 52mm | Y | | | | | |
| Tape and Reel (Left Oriented) (TRL) | L | PANASERT T/B CATHODE UP (PBCU) | U | | | | | |
| FORMING | F | PANASERT T/B CATHODE DOWN (PBCD) | D | | | | | |





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