



MBR1020CT~MBR10100CT

10 AMPERES SCHOTTKY BARRIER RECTIFIERS

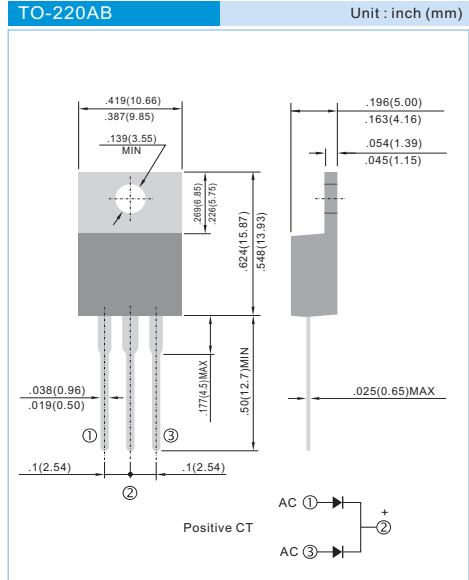
VOLTAGE 20 to 100 Volts **CURRENT** 10 Amperes

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O. Flame Retardant Epoxy Molding Compound.
- Metal silicon junction, majority carrier conduction
- Low power loss, high efficiency.
- High current capability
- Guardring for overvoltage protection
- For use in low voltage, high frequency inverters free wheeling, and polarity protection applications.
- Pb free product are available : 99% Sn above can meet Rohs environment substance directive request

MECHANICAL DATA

Case: TO-220AB molded plastic
 Terminals: solder plated, solderable per MIL-STD-750, Method 2026
 Polarity: As marked.
 Mounting Position: Any
 Weight: 0.08 ounces, 2.24grams.



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 | MBR1020CT | MBR1030CT | MBR1040CT | MBR1045CT | MBR1050CT | MBR1060CT | MBR1080CT | MBR10100CT | UNITS |
|---|------------------|-----------|-----------|-----------|-----------|--------------|-----------|-----------|------------|--------|
| Maximum Recurrent Peak Reverse Voltage | V _{RRM} | 20 | 30 | 40 | 45 | 50 | 60 | 80 | 100 | V |
| Maximum RMS Voltage | V _{RMS} | 14 | 21 | 28 | 31.5 | 35 | 42 | 56 | 70 | V |
| Maximum DC Blocking Voltage | V _{DC} | 20 | 30 | 40 | 45 | 50 | 60 | 80 | 100 | V |
| Maximum Average Forward Current (See fig.1) | I _{AV} | 10 | | | | | | | | 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 5A, per leg | V _F | 0.65 | | | | 0.75 | | 0.8 | | V |
| Maximum DC Reverse Current T _c =25 °C at Rated DC Blocking Voltage T _c =125°C | I _R | | | | | 0.1 20 | | | | mA |
| Typical Thermal Resistance | R _{θJC} | | | | | 2 | | | | °C / W |
| Operating Junction Temperature Range | T _J | | | | | -50 TO + 150 | | | | °C |
| Storage Temperature Range | T _{STG} | | | | | -50 TO + 175 | | | | °C |

Notes :
 Both Bonding and Chip structure are available.



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RATING AND CHARACTERISTIC CURVES

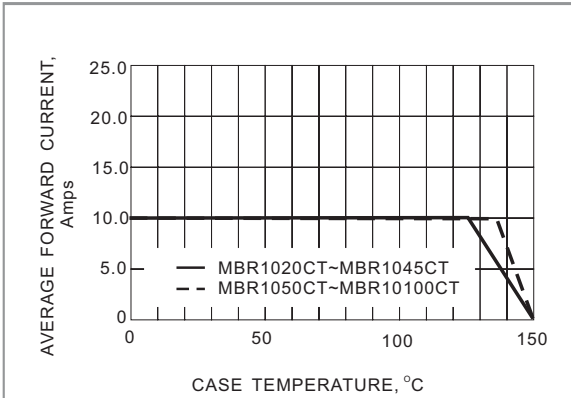


Fig. 1- FORWARD CURRENT DERATING CURVE

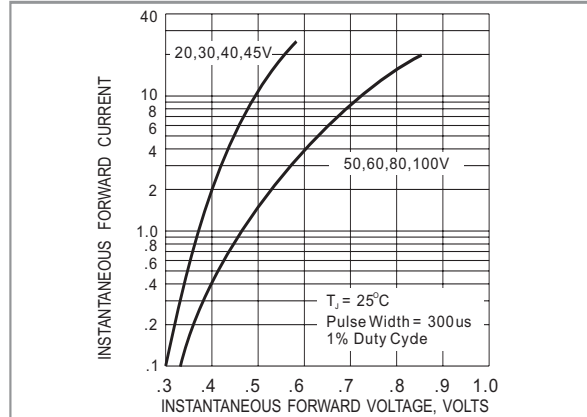


Fig. 2- MAXIMUM NON - REPETITIVE SURGE CURRENT

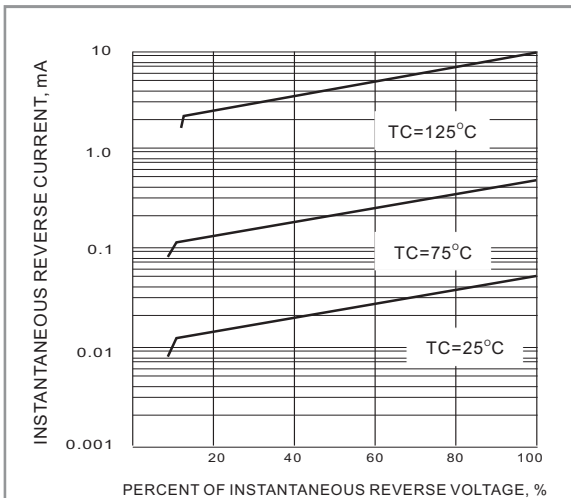


Fig. 3- TYPICAL REVERSE CHARACTERISTICS

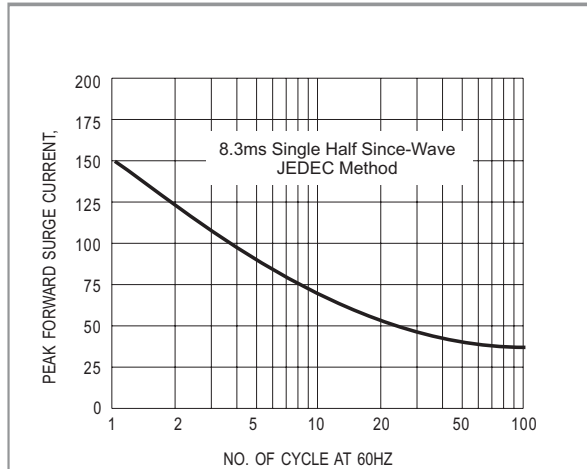


Fig. 4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS