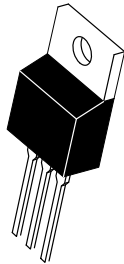




MBR4020CT THRU MBR40200CT

30.0 AMP SCHOTTKY BARRIER RECTIFIERS



FEATURES

- * Low forward voltage drop
- * High current capability
- * High reliability
- * High surge current capability
- * Good for switching mode application

MECHANICAL DATA

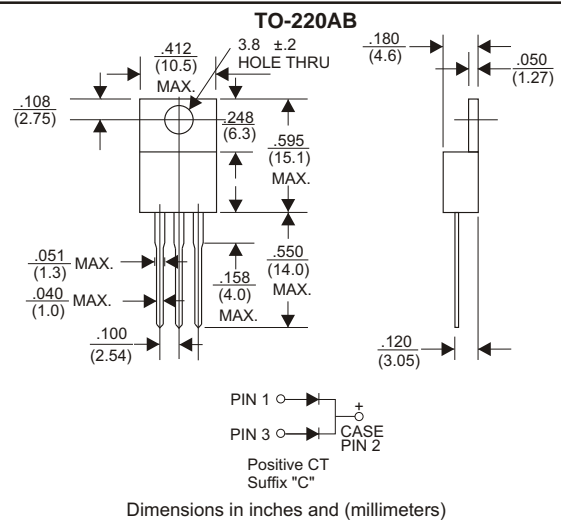
- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Lead: Lead solderable per MIL-STD-202, method 208 guaranteed
- * Polarity: As Marked
- * Mounting position: Any

VOLTAGE RANGE

20 to 200 Volts

CURRENT

40.0 Amperes



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25°C ambient temperature unless otherwise specified.
Single phase half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

| TYPE NUMBER | MBR4020CT | MBR4045CT | MBR4060CT | MBR4080CT | MBR40100CT | MBR40150CT | MBR40200CT | UNITS |
|---|------------|-----------|-----------|-----------|------------|------------|------------|-------|
| Maximum Recurrent Peak Reverse Voltage | 20 | 45 | 60 | 80 | 100 | 150 | 200 | V |
| Maximum RMS Voltage | 14 | 32 | 42 | 56 | 70 | 105 | 140 | V |
| Maximum DC Blocking Voltage | 20 | 45 | 60 | 80 | 100 | 150 | 200 | V |
| Maximum Average Forward Rectified Current at Tc=125°C | 30 | | | | | | | A |
| Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method) | 300 | | | | | | | A |
| Maximum Instantaneous Forward Voltage at 40A | 0.65 | 0.75 | 0.85 | | 0.92 | | | V |
| Maximum DC Reverse Current Ta=25°C | 0.1 | | 0.02 | | | | | mA |
| at Rated DC Blocking Voltage Ta=100°C | 10 | | 2 | | | | | mA |
| Typical Junction Capacitance (Note1) | 600 | | | | | | | pF |
| Typical Thermal Resistance RθJC (Note 2) | 2.5 | | | | | | | °C/W |
| Operating Temperature Range Tj | -65 — +150 | | | | | | | °C |
| Storage Temperature Range Tstg | -65 — +150 | | | | | | | °C |

NOTES:

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Thermal Resistance Junction to Case.

RATING AND CHARACTERISTIC CURVES (MBR4020CT THRU MBR40200CT)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

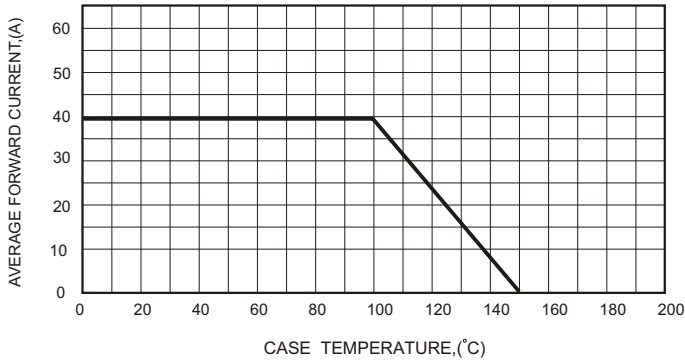


FIG.2-TYPICAL FORWARD CHARACTERISTICS

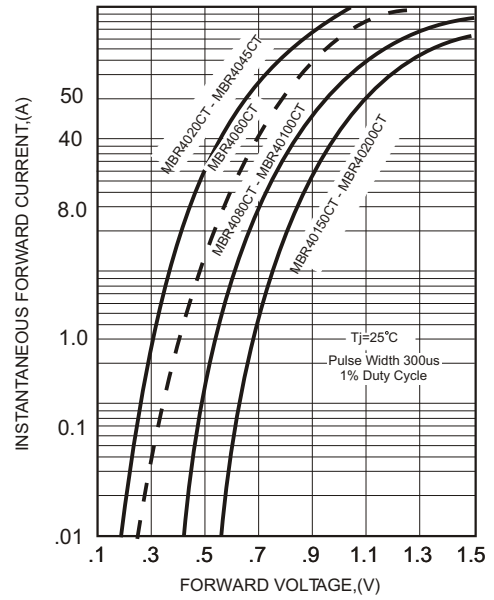


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

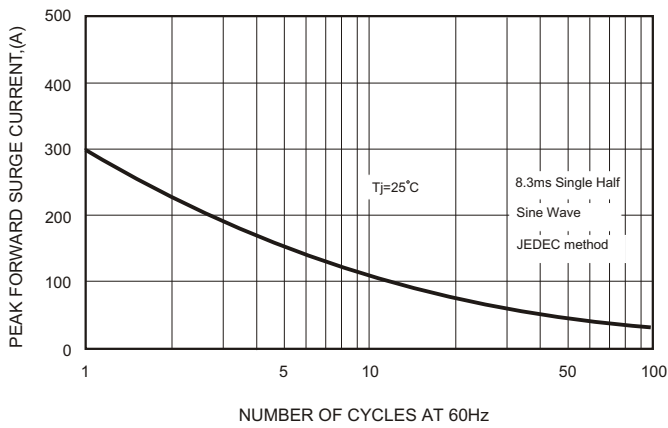


FIG.4-TYPICAL JUNCTION CAPACITANCE

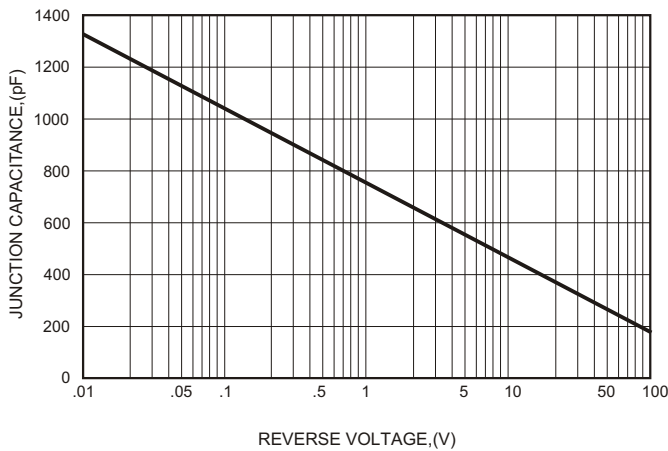


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

