

MBR3040CT - MBR30200CT SCHOTTKY BARRIER RECTIFIER DIODES

PRV : 40 - 200 Volts

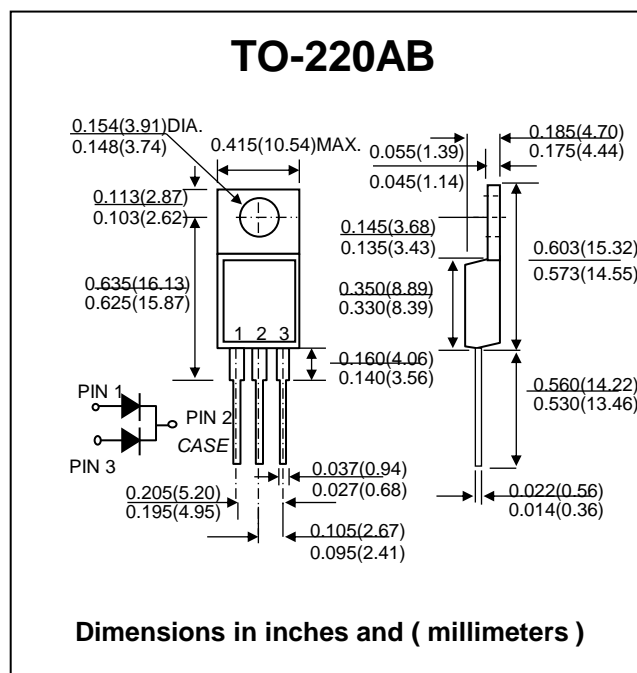
Io : 30 Ampere

FEATURES :

- * High surge forward current capability
- * High efficiency
- * High speed switching
- * Low Power loss
- * **Pb / RoHS Free**

MECHANICAL DATA :

- * Case : Molded plastic
- * Polarity: As marked
- * Mounting Position: Any
- * Weight : 1.9 grams (Approximately)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.

| RATING | SYMBOL | MBR 3040CT | MBR 3060CT | MBR 30100CT | MBR 30150CT | MBR 30200CT | UNIT |
|---|-----------------|--------------|------------|-------------|-------------|-------------|---------------|
| Maximum Peak Repetitive Reverse Voltage | V_{RRM} | 40 | 60 | 100 | 150 | 200 | V |
| Maximum Average Forward Current | $I_{F(AV)}$ | 30 | | | | | A |
| Maximum Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) at $T_a = 25^{\circ}C$ | I_{FSM} | 200 | | | | | A |
| Maximum Instantaneous Forward Voltage at $I_F = 15 A$ | V_F | 0.65 | 0.75 | 0.85 | 0.9 | 0.95 | V |
| Maximum Reverse Current at $T_J = 25^{\circ}C$ | I_R | 0.2 | | | | | mA |
| Rated DC Blocking Voltage $T_J = 100^{\circ}C$ | $I_{R(H)}$ | 20 | | | | | mA |
| Maximum Thermal Resistance, Junction to Case | $R_{\theta JC}$ | 2.0 | | | | | $^{\circ}C/W$ |
| Operating Junction Temperature Range | T_J | -55 to + 150 | | | | | $^{\circ}C$ |
| Storage Temperature Range | T_{STG} | -55 to + 150 | | | | | $^{\circ}C$ |

Note :

(1) Pulse test : 300 μs pluse width, 1% duty cycle

(RATING AND CHARACTERISTIC CURVES (MBR3040CT - MBR30200CT)

FIG.1 - FORWARD CURRENT DERATING CURVE

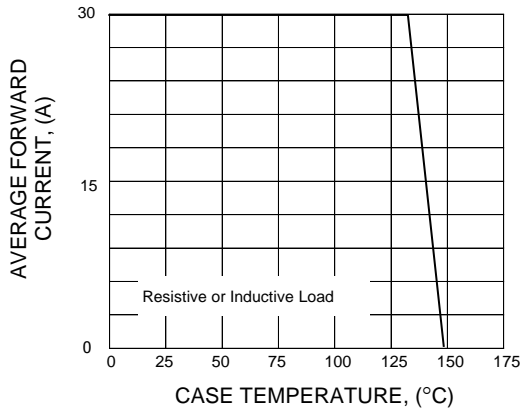


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

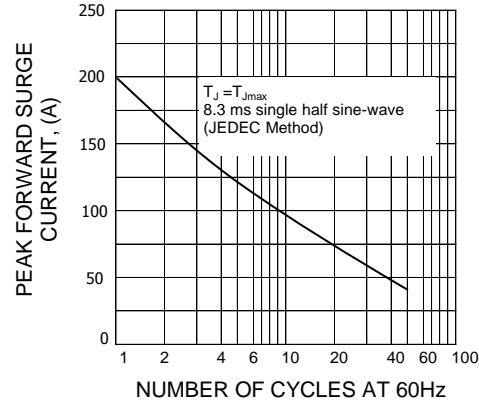


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

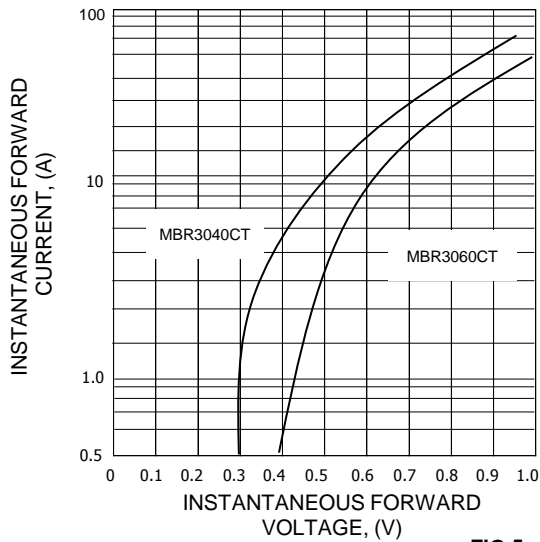


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

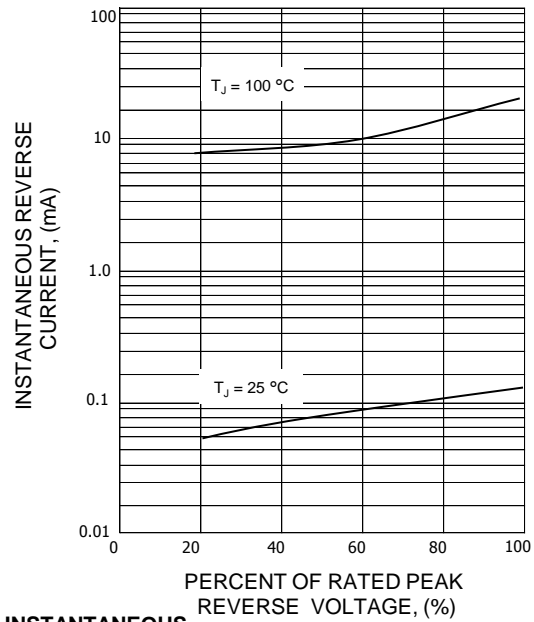


FIG.5 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

