

MBR2535CT ~ MBR2560CT

DUAL SCHOTTKY BARRIER RECTIFIERS

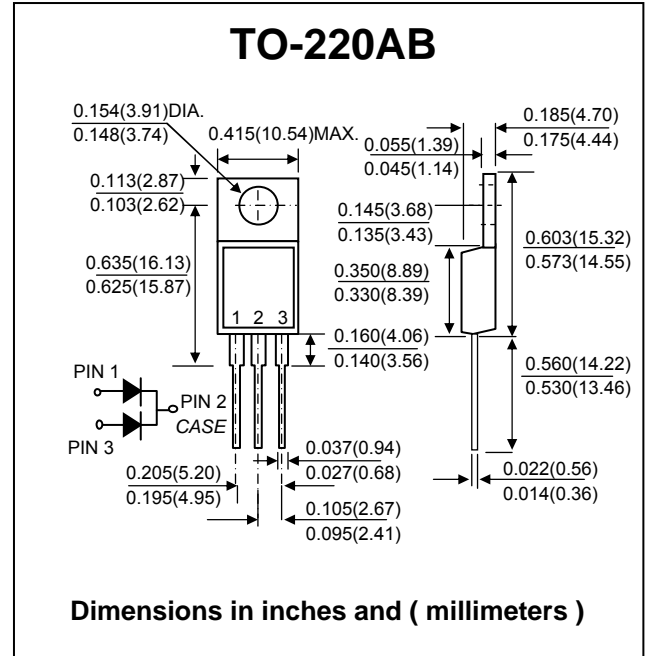
PRV : 35 ~ 60 Volts
Io : 30 Amperes

FEATURES :

- * Plastic package has Underwriters Laboratory Flammability Classifications 94V-0
- * Dual rectifier construction, positive center tap
- * Metal silicon junction, majority carrier conduction
- * Low power loss, high efficiency
- * Guardring for overvoltage protection
- * For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- * High temperature soldering : 250°C/10 seconds, 0.25" (6.35mm) from case
- * **Pb / RoHS Free**

MECHANICAL DATA :

- * Case : JEDEC TO-220AB molded plastic body
- * Terminals: Plated leads, solderable per MIL-STD-750 Method 2026
- * Polarity: As marked
- * Mounting Position: Any
- * Weight : 2.24 grams (Approximately)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T_c = 25 °C unless otherwise noted)

| RATINGS | SYMBOL | MBR 2535CT | MBR 2545CT | MBR 2550CT | MBR 2560CT | UNIT |
|--|--------------------|---------------|------------|--------------|------------|------|
| Maximum Repetitive Peak Reverse Voltage | V _{RRM} | 35 | 45 | 50 | 60 | V |
| Maximum RMS Voltage | V _{RMS} | 35 | 45 | 50 | 60 | V |
| Maximum DC Blocking Voltage | V _{DC} | 35 | 45 | 50 | 60 | V |
| Maximum Average Forward Current at T _c = 130 °C <i>Total device</i> <i>Per leg</i> | I _{F(AV)} | 30 15 | | | | A |
| Peak Forward Surge Current, 8.3ms single half sine wave superimposed on rated load (JEDEC Method) Per leg | I _{FSM} | 150 | | | | A |
| Maximum Instantaneous Forward Voltage per leg (Note 1) at I _F = 15 A, T _c = 25 °C at I _F = 15 A, T _c = 125 °C at I _F = 30 A, T _c = 25 °C at I _F = 30 A, T _c = 125 °C | V _F | - | | 0.75 0.65 | | V |
| Maximum Reverse Current at Rated DC Blocking Voltage per leg (Note 1) | I _R | 0.2 | | 1.0 | | mA |
| | I _{R(H)} | 40 | | 50 | | mA |
| Typical Thermal Resistance from Junction to Case Per leg | R _{θJC} | 1.5 | | | | °C/W |
| Operating Temperature Range | T _J | - 65 to + 150 | | | | °C |
| Storage Temperature Range | T _{STG} | - 65 to + 175 | | | | °C |

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

RATING AND CHARACTERISTIC CURVES (MBR2535CT ~ MBR2560CT)

FIG.1 - FORWARD CURRENT DERATING CURVE

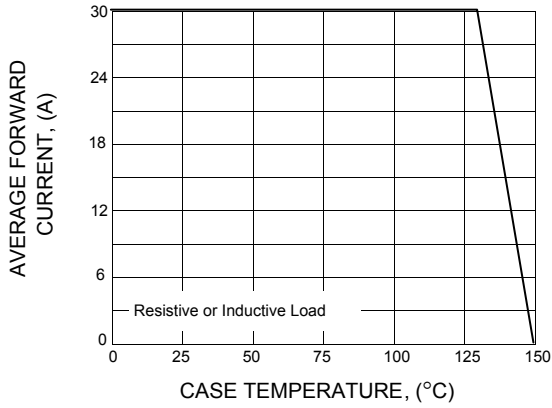


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

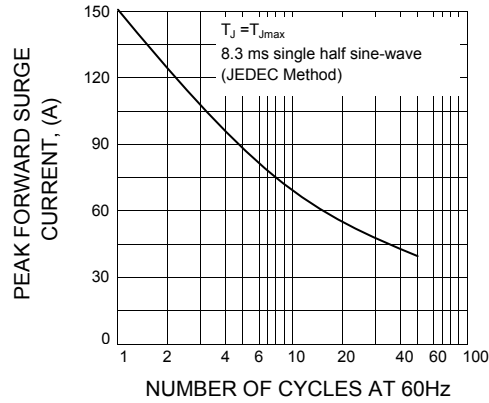


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS PER LEG

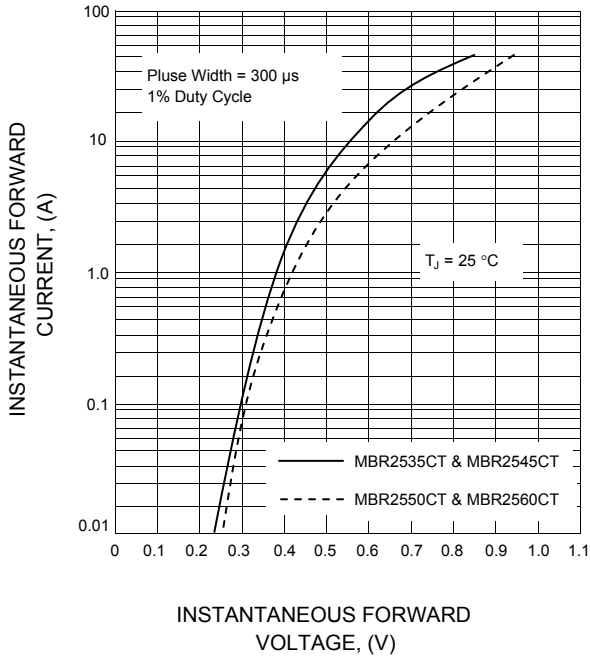


FIG.4 - TYPICAL REVERSE CHARACTERISTICS PER LEG

