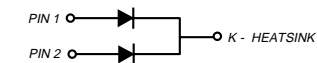
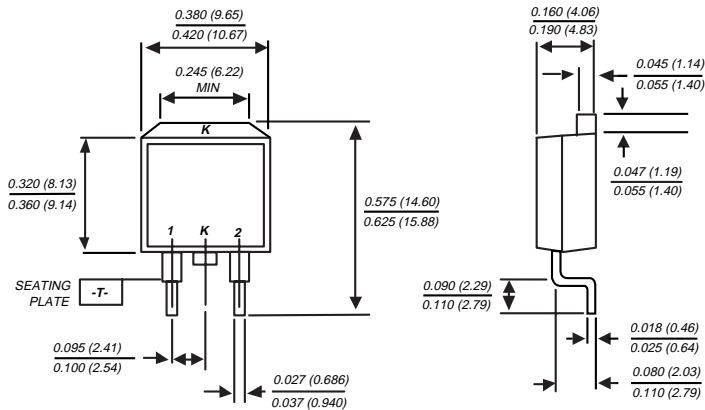


MBRB2535CT THRU MBRB2560CT

SCHOTTKY RECTIFIER

Reverse Voltage - 35 to 60 Volts Forward Current - 30.0 Amperes

TO-263AB



Dimensions in inches and (millimeters)

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
- ◆ High current capability, low forward voltage drop
- ◆ High surge capability
- ◆ For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- ◆ Guardring for overvoltage protection
- ◆ High temperature soldering in accordance with CECC 802 / Reflow guaranteed



MECHANICAL DATA

Case: JEDEC TO-263AB molded plastic body
Terminals: Lead solderable per MIL-STD-750, Method 2026
Polarity: As marked
Mounting Position: Any
Weight: 0.08 ounce, 2.24 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

| | SYMBOLS | MBRB2535CT | MBRB2545CT | MBRB2550CT | MBRB2560CT | UNITS |
|--|-----------------|-------------------------|------------|-------------------------|------------|---------------------------|
| Maximum repetitive peak reverse voltage | V_{RRM} | 35 | 45 | 50 | 60 | Volts |
| Maximum working peak reverse voltage | V_{RWM} | 35 | 45 | 50 | 60 | Volts |
| Maximum DC blocking voltage | V_{DC} | 35 | 45 | 50 | 60 | Volts |
| Maximum average forward rectified current at $T_C=130^\circ\text{C}$ | $I_{(AV)}$ | 30.0 | | | | Amps |
| Peak repetitive forward current per leg at $T_C=130^\circ\text{C}$ (rated V_R , square wave, 20 KHz) | I_{FRM} | 30.0 | | | | Amps |
| Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method) | I_{FSM} | 150.0 | | | | Amps |
| Peak repetitive reverse surge current (NOTE 1) | I_{RRM} | 1.0 | | 0.5 | | Amps |
| Maximum instantaneous forward voltage $I_F=15.0\text{A}, T_C=25^\circ\text{C}$ per leg at: (NOTE 2) | V_F | - | | 0.75 | | Volts |
| $I_F=15.0\text{A}, T_C=25^\circ\text{C}$ | | - | | 0.65 | | |
| $I_F=30\text{A}, T_C=25^\circ\text{C}$ | | 0.82 | | - | | |
| $I_F=30\text{A}, T_C=125^\circ\text{C}$ | | 0.73 | | - | | |
| Maximum instantaneous reverse current at rated DC blocking voltage per leg (NOTE 2) | I_R | $T_C=25^\circ\text{C}$ | | $T_C=25^\circ\text{C}$ | | mA |
| | | 0.2 | | 1.0 | | |
| | | $T_C=125^\circ\text{C}$ | | $T_C=125^\circ\text{C}$ | | |
| | | 40.0 | | 50.0 | | |
| Maximum thermal resistance (NOTE 3) | $R_{\theta JC}$ | 1.5 | | | | $^\circ\text{C}/\text{W}$ |
| Voltage rate of change (rated V_R) | dv/dt | 10,000 | | | | $\text{V}/\mu\text{s}$ |
| Operating junction temperature range | T_J | -65 to +150 | | | | $^\circ\text{C}$ |
| Storage temperature range | T_{STG} | -65 to +175 | | | | $^\circ\text{C}$ |

NOTES: (1) 2.0 μs pulse width, $f=1.0$ KHz
(2) Pulse test: 300 μs pulse width, 1% duty cycle
(3) Thermal resistance from junction to case per leg

RATINGS AND CHARACTERISTIC CURVES MBRB2535CT THRU MBRB2560CT

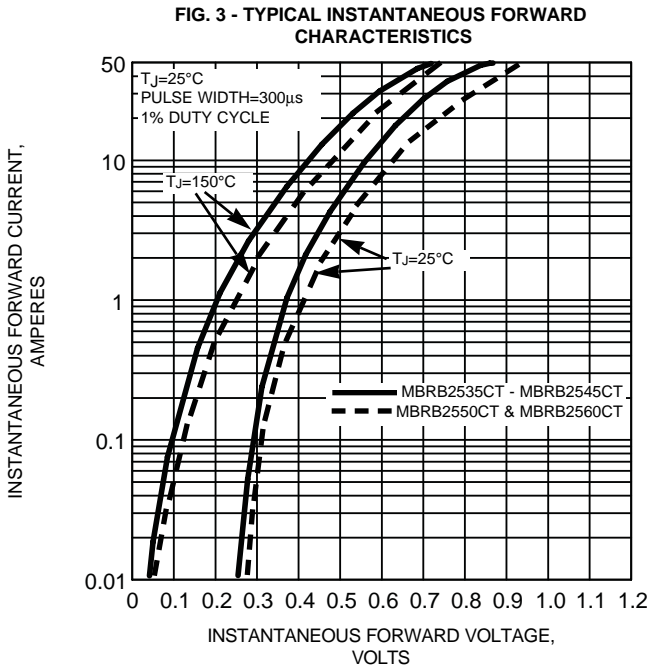
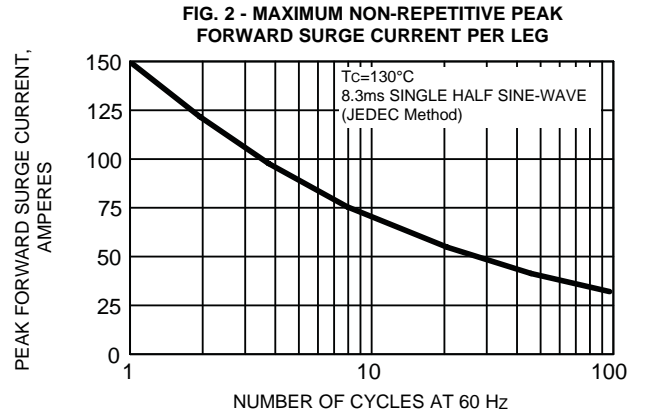
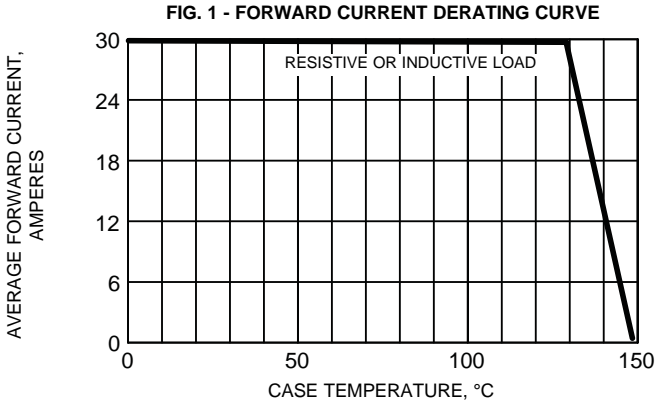


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS PER LEG

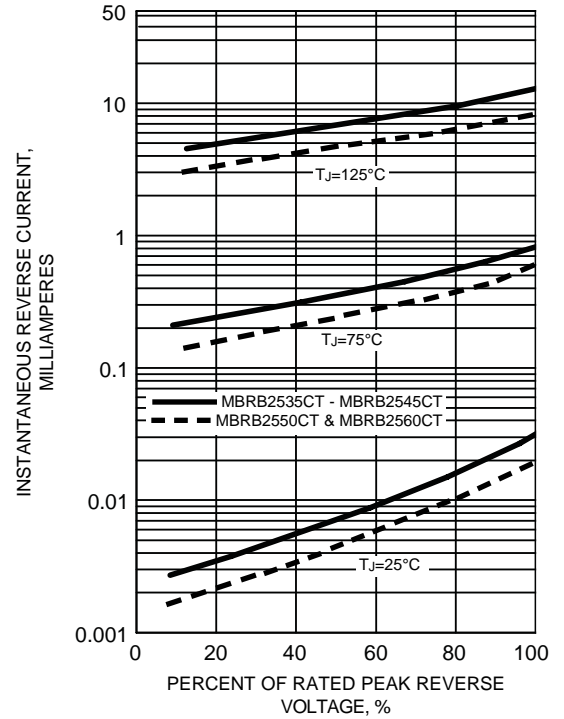


FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE PER LEG

