



MBRD1030CS THRU MBRD10200CS

SCHOTTKY BARRIER RECTIFIERS

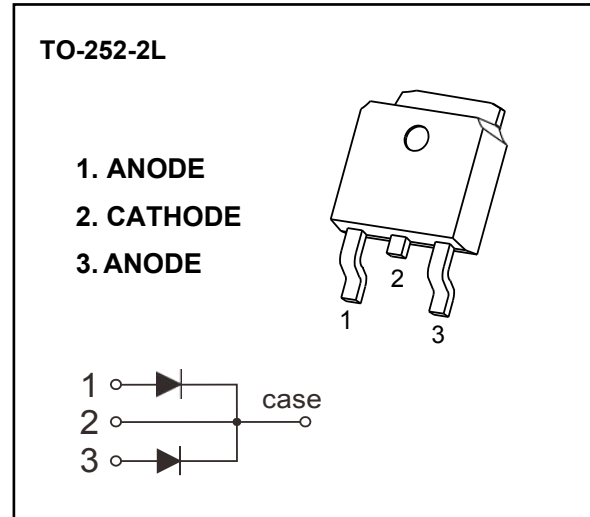
Reverse Voltage - 30 to 200 Volts Forward Current - 10.0 Amperes

FEATURES

- Low cost.
- Low leakage.
- Low forward voltage drop.
- High current capability.
- Easily cleaned with Alcohol, Isopropanol and Similar solvents.
- The plastic material carries U/L recognition 94V-0

MECHANICAL DATA

Case: TO-252
Molding Compound: UL Flammability Classification Rating 94V-0
Terminals: Matte tin-plated leads; solderability-per MIL-STD-202, Method 208



MAXIMUM RATING operating temperature range applies unless otherwise specified

| Symbol | Parameter | MBRD 1030 CS | MBRD 1035 CS | MBRD 1040 CS | MBRD 1045 CS | MBRD 1050 CS | MBRD 1060 CS | MBRD 1080 CS | MBRD 10100 CS | MBRD 10150 CS | MBRD 10200 CS | UNIT |
|-----------------|--|--------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|---------------|---------------|---------------|
| V_{RRM} | Recurrent Peak Reverse Voltage | 30 | 35 | 40 | 45 | 50 | 60 | 80 | 100 | 150 | 200 | V |
| V_{RMS} | RMS Reverse Voltage | 21 | 25 | 28 | 32 | 35 | 42 | 56 | 70 | 105 | 140 | V |
| V_{DC} | DC Blocking Voltage | 30 | 35 | 40 | 45 | 50 | 60 | 80 | 100 | 150 | 200 | V |
| $I_{F(AV)}$ | Average Forward Total Device Rectified Current @ $T_A=100^{\circ}C$ | 10 | | | | | | | | | | A |
| I_R | Reverse Current $V_R=V_{RRM}, T_A=25^{\circ}C$ $V_R=V_{RRM}, T_A=125^{\circ}C$ | 0.1 | | | | | 0.1 | | 0.1 | | | mA |
| | | 15 | | | 25 | | 50 | | | | | |
| I_{FSM} | Forward Surge Current 8.3ms Single Half Sine-wave Superimosed on Rated Load | 125 | | | | | | | | | | A |
| $V_F^{(Note1)}$ | Forward $I_F=5A$ | 0.70 | | | 0.80 | | 0.85 | | 0.90 | | 0.95 | V |
| $R_{\theta JC}$ | Thermal Resistance ^(Note1) | 4.0 | | | | | | | | | | $^{\circ}C/W$ |
| T_J, T_{STG} | Operating and Storage Temperature Range | -55 to +150 | | | | | | | | | | $^{\circ}C$ |

Note:1. Thermal resistance from junction to case.



TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

FIG.1 – FORWARD CURRENT DERATING CURVE

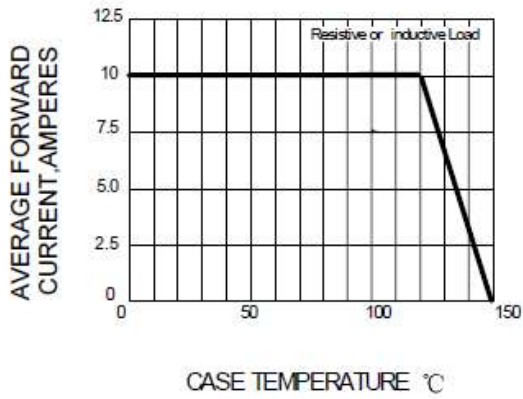


FIG.2 – MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

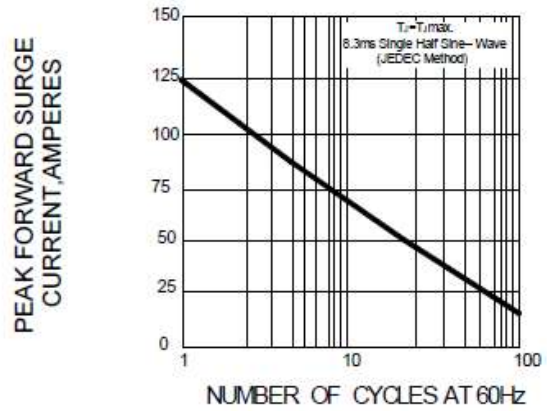


FIG.3 – TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC PER LEG

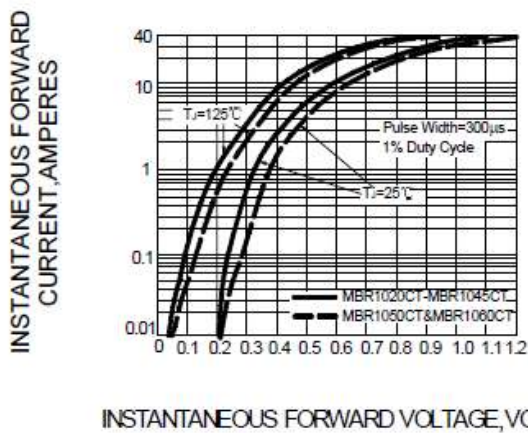


FIG.4 – TYPICAL REVERSE CHARACTERISTICS

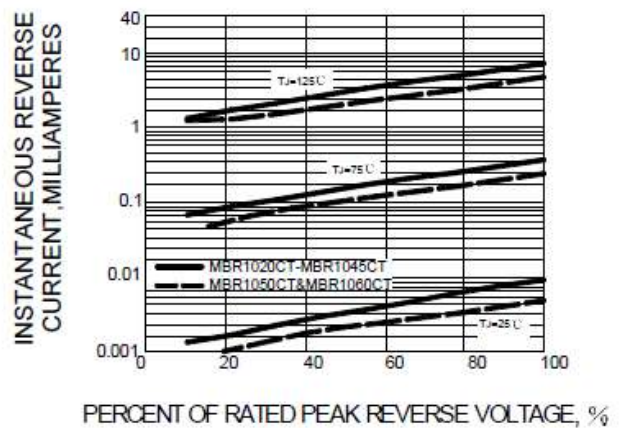


FIG.5-TYPICAL JUNCTION CAPACITANCE PER LEG

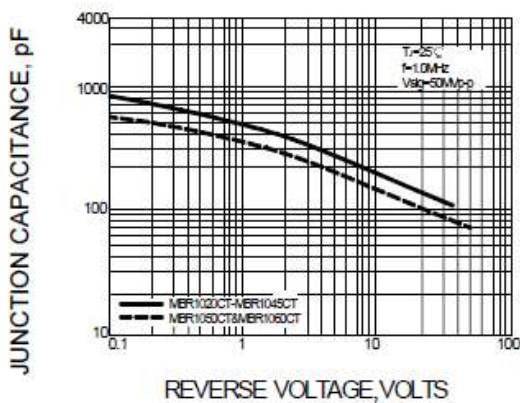


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE PER LEG

