



MBRD1030CS THRU MBRD10200CS

SCHOTTKY BARRIER RECTIFIERS

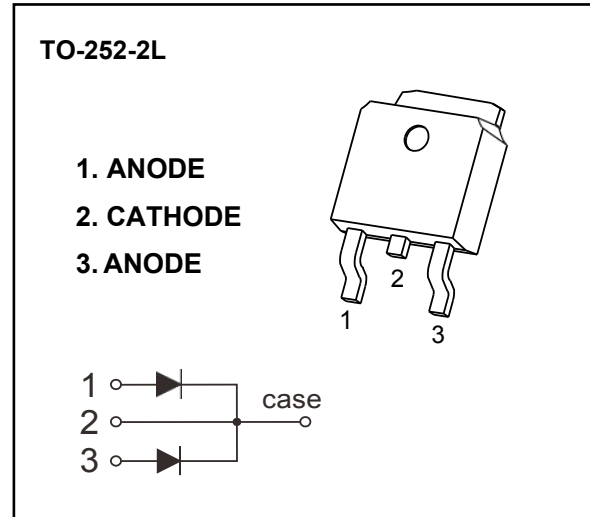
Reverse Voltage - 30 to 200 Volts Forward Current - 10.0 Amperes

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					mA	
		15					25		50				
I_{FSM}	Forward Surge Current 8.3ms Single Half Sine-wave Superimposed 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

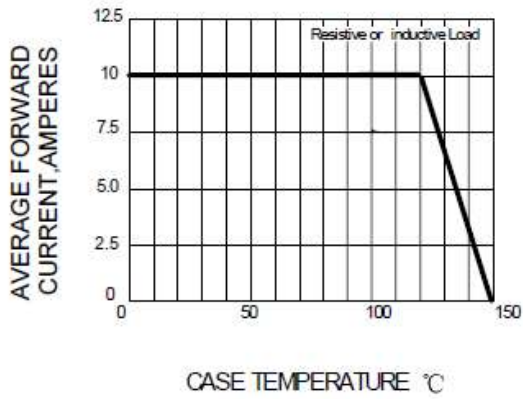


FIG.2 – MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

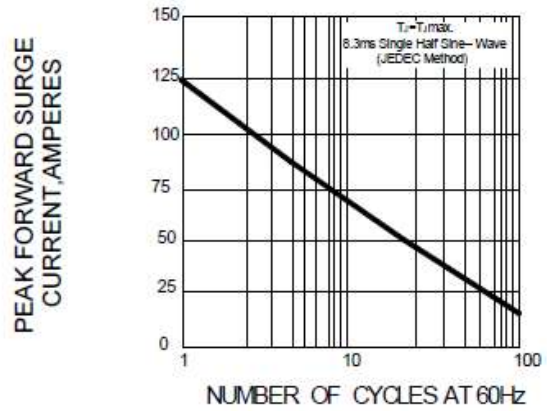


FIG.3 – TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC PER LEG

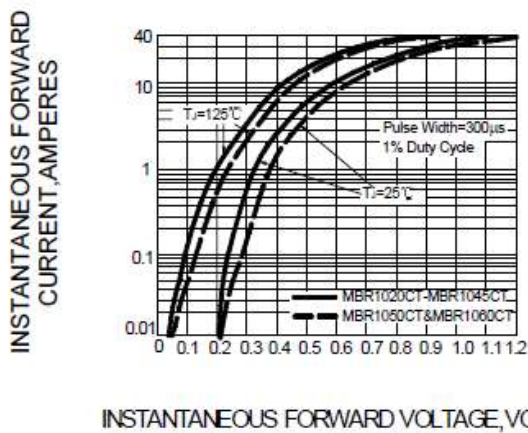


FIG.4 – TYPICAL REVERSE CHARACTERISTICS

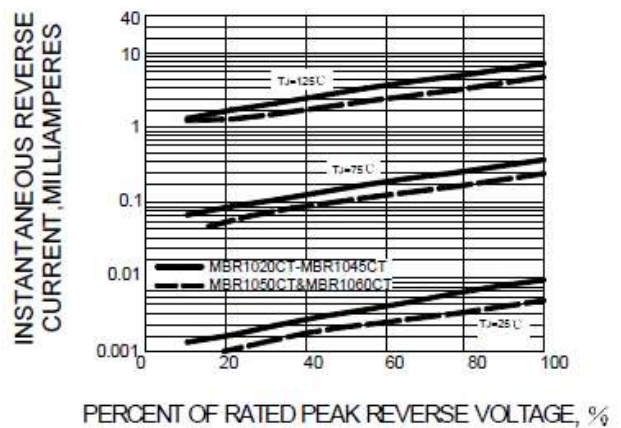


FIG.5-TYPICAL JUNCTION CAPACITANCE PER LEG

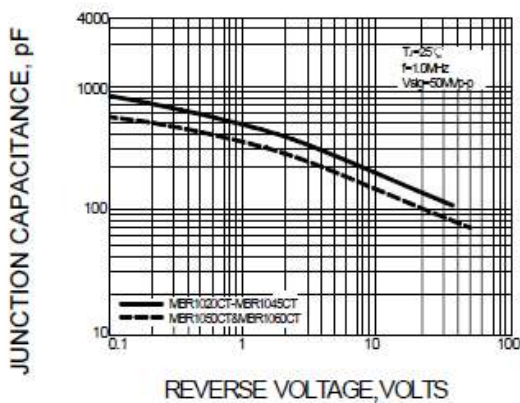


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE PER LEG

