Features

- High Frequency Operation
- High Current Capability, High Efficiency
- Halogen Free. "Green" Device (Note 1)
- High Junction Temperature Capability
- Lead Free Finish/RoHS Compliant(Note 2) ("P" Suffix Designates Compliant. See Ordering Information)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1

10 Amp Schottky Barrier Rectifier 100 to 200 Volts

Maximum Ratings

- Operating Junction Temperature Range: -55ºC to +175ºC
- Storage Temperature Range: -55ºC to +175ºC
- Typical Thermal Resistance: 5°C/W Junction to Case
- Typical Thermal Resistance: 22°C/W Junction to Ambient(Note 3)

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBRD10100CTH	MBRD10100CTH	100V	70V	100V
MBRD10150CTH	MBRD10150CTH	150V	105V	150V
MBRD10200CTH	MBRD10200CTH	200V	140V	200V

Electrical Characteristics @ 25°C Unless Otherwise Specified

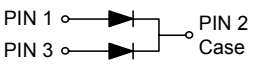
Average Forward Current	$I_{F(AV)}$	10A	T_C=130ºC
Peak Forward Surge Current	I_{FSM}	120A	8.3ms,Half Sine
Maximum Instantaneous Forward Voltage MBRD10100CTH MBRD10150CTH MBRD10200CTH MBRD10200CTH	V_F	 0.8V 0.85V 0.9V 0.84V	 I_{FM}=5A; T_J=25ºC I_{FM}=5A; T_J=25ºC I_{FM}=5A; T_J=25ºC I_{FM}=5A; T_J=125ºC
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	0.01mA 5mA	T_J=25ºC; T_J=125ºC
Typical Junction Capacitance	C_J	100pF	Measured at 1.0MHz, V_R=4.0V

Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

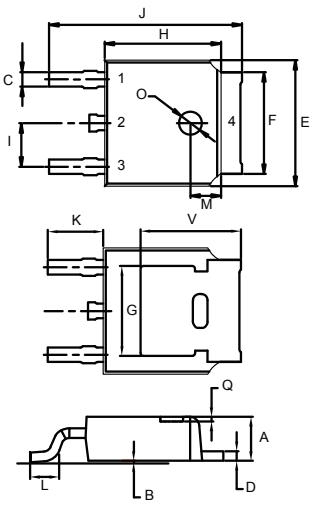
2. High temperature solder exemption applied, see EU directive annex 7a.

3.Test with 2in. Al board.

Internal Structure:



(TO-252) DPAK



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.087	0.094	2.20	2.40	
B	0.000	0.005	0.00	0.13	
C	0.026	0.034	0.66	0.86	
D	0.018	0.023	0.46	0.58	
E	0.256	0.264	6.50	6.70	
F	0.201	0.215	5.10	5.46	
G	0.190		4.83		
H	0.236	0.244	6.00	6.20	
I	0.086	0.094	2.18	2.39	
J	0.386	0.409	9.80	10.40	
K	0.114		2.90		
L	0.055	0.067	1.40	1.70	
M	0.063		1.60		
O	0.043	0.051	1.10	1.30	
Q	0.000	0.012	0.00	0.30	
V	0.211		5.35		

Curve Characteristics

Fig. 1 - Forward Current Derating Curve

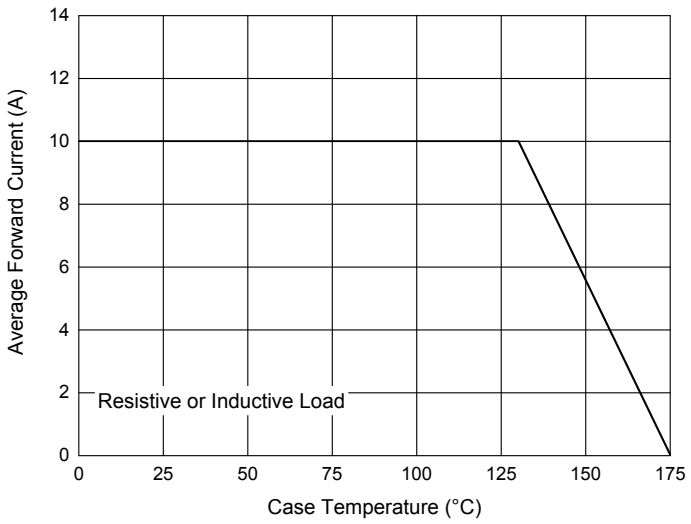


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

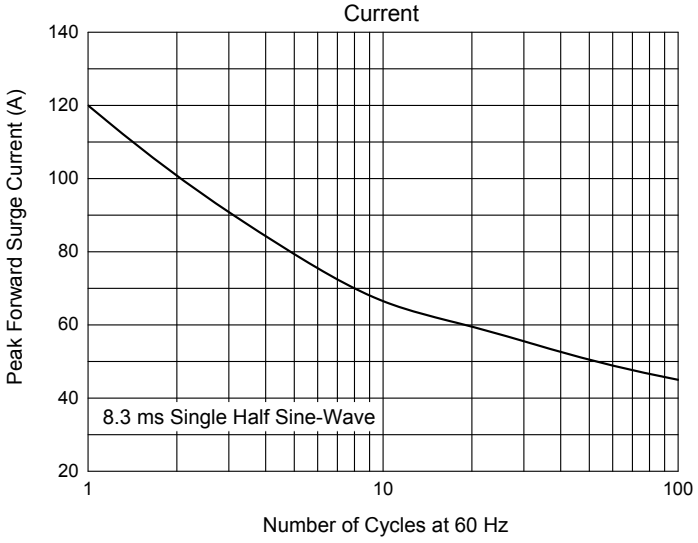


Fig. 3 - MBRD10100CTH Typical Instantaneous Forward Characteristics

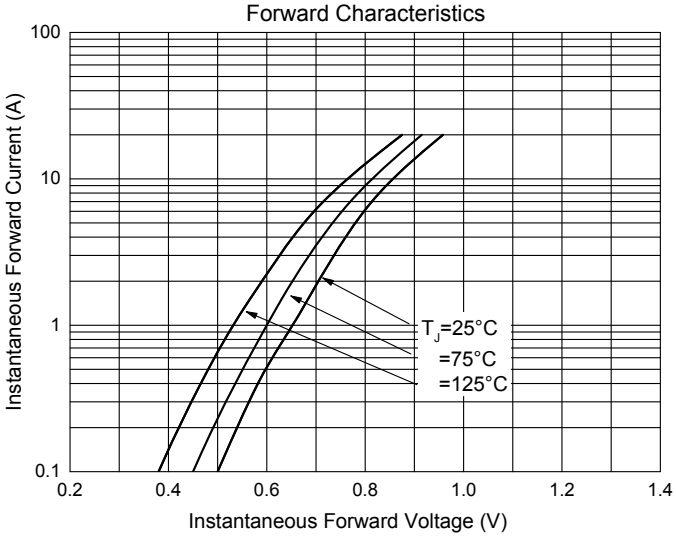


Fig. 4 - MBRD10150CTH Typical Instantaneous Forward Characteristics

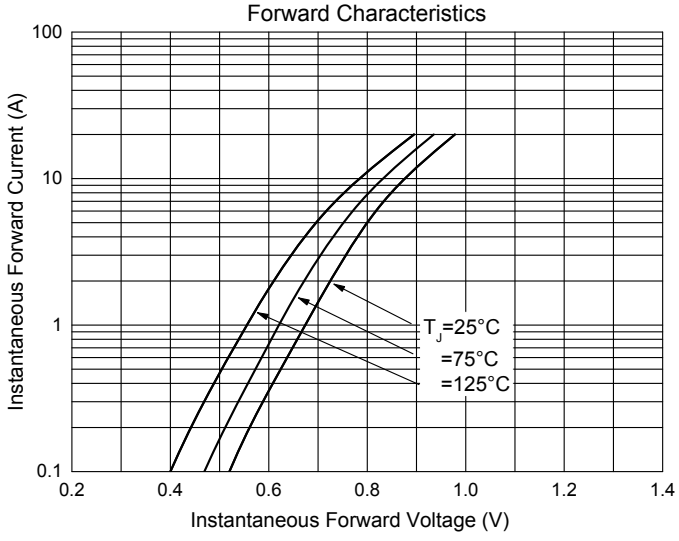


Fig. 5 - MBRD10200CTH Typical Instantaneous Forward Characteristics

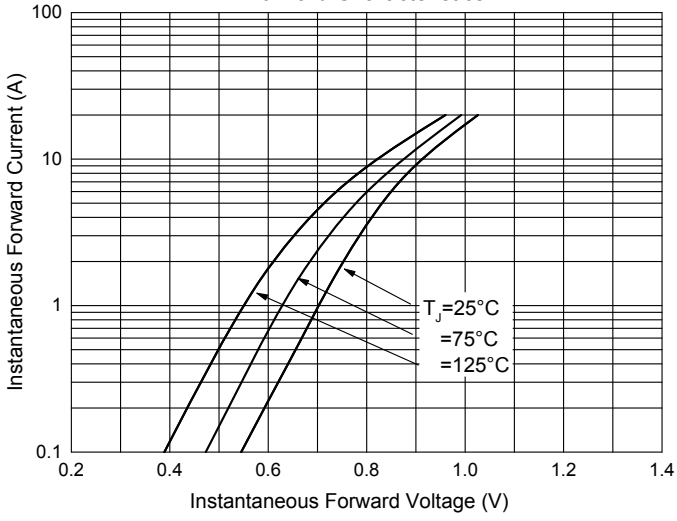
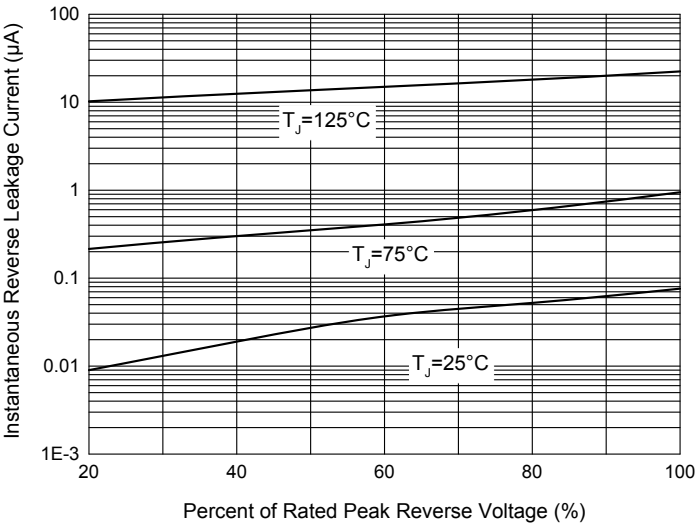


Fig. 6 - Typical Reverse Leakage Characteristics



Ordering Information

Device	Packing
Part Number-TP	Tape&Reel: 2.5Kpcs/Reel

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