

Features

- High Frequency Operation
- High Current Capability, High Efficiency
- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Low Forward Voltage Drop
- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix Designates Compliant. See Ordering Information)
- Epoxy Meets UL 94 V-0 Flammability Rating

Maximum Ratings

- Operating Junction Temperature Range: -55°C to +175°C
- Storage Temperature Range: -55°C to +175°C
- Typical Thermal Resistance: 2°C/W Junction to Case

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBR10100CTH	MBR10100CTH	100V	70V	100V
MBR10150CTH	MBR10150CTH	150V	105V	150V
MBR10200CTH	MBR10200CTH	200V	140V	200V

Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	10A	$T_C=150^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	120A	8.3ms, Half Sine
Maximum Instantaneous Forward Voltage MBR10100CTH MBR10150CTH MBR10200CTH	V_F	0.8V 0.85V 0.9V	$I_{FM}=5A$ $T_A=25^\circ\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	0.01mA 5mA	$T_A=25^\circ\text{C};$ $T_A=125^\circ\text{C}$
Typical Junction Capacitance	C_J	100pF	Measured at 1.0MHz, $V_R=4.0V$

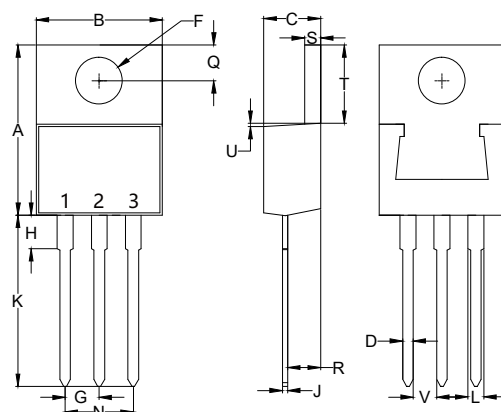
Note :1. High Temperature Solder Exemption Applied, See EU Directive Annex 7a.

Internal Structure



10 Amp Schottky Barrier Rectifier 100 to 200 Volts

TO-220AB



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.560	0.625	14.22	15.88	
B	0.380	0.429	9.65	10.90	
C	0.140	0.201	3.56	5.10	
D	0.020	0.045	0.51	1.14	
F	0.131	0.170	3.34	4.31	Φ
G	0.079	0.121	2.01	3.07	
H	-----	0.250	-----	6.35	
J	0.011	0.025	0.28	0.64	
K	0.500	0.580	12.70	14.73	
L	0.045	0.060	1.14	1.52	
N	0.158	0.242	4.02	6.14	
Q	0.087	0.135	2.22	3.43	
R	0.080	0.126	2.04	3.19	
S	0.045	0.055	1.14	1.39	
T	0.230	0.270	5.84	6.86	
U	-----	0.050	-----	1.27	
V	0.045	-----	1.15	-----	

Curve Characteristics

Fig. 1 - Forward Current Derating Curve

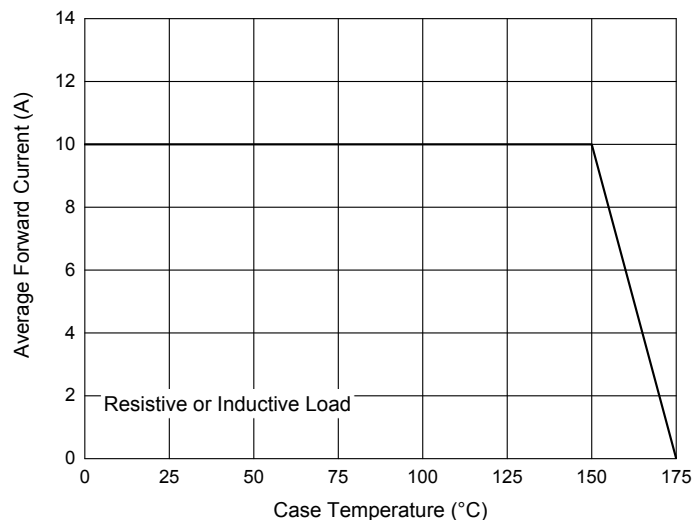


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

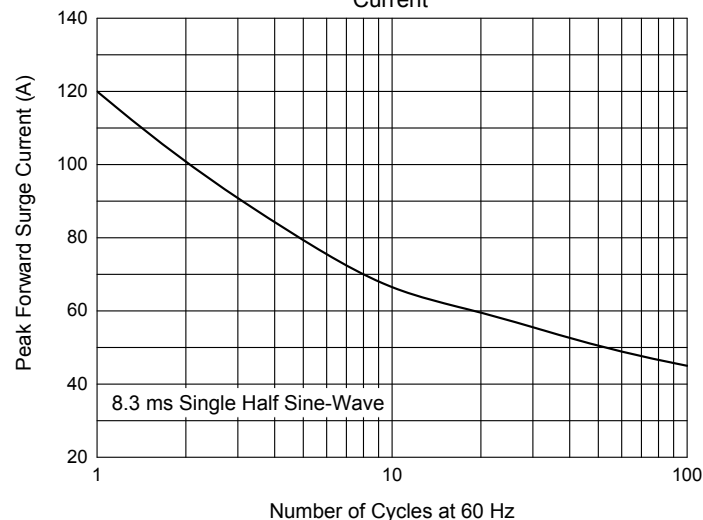


Fig. 3 - MBR10100CTH Typical Instantaneous Forward Characteristics

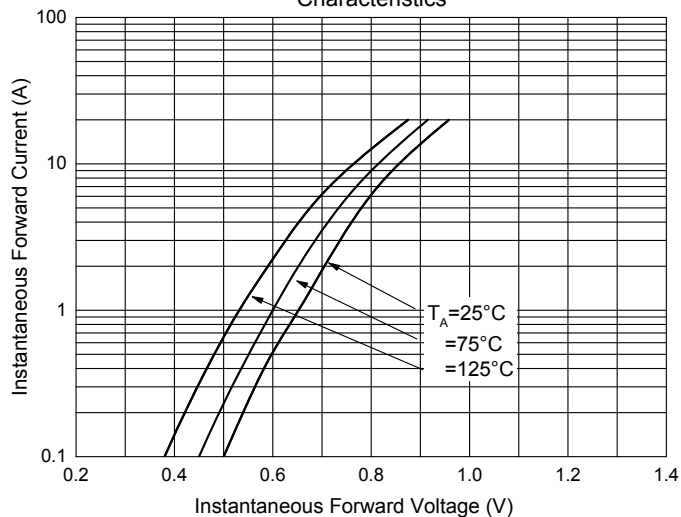


Fig. 4 - MBR10150CTH Typical Instantaneous Forward Characteristics

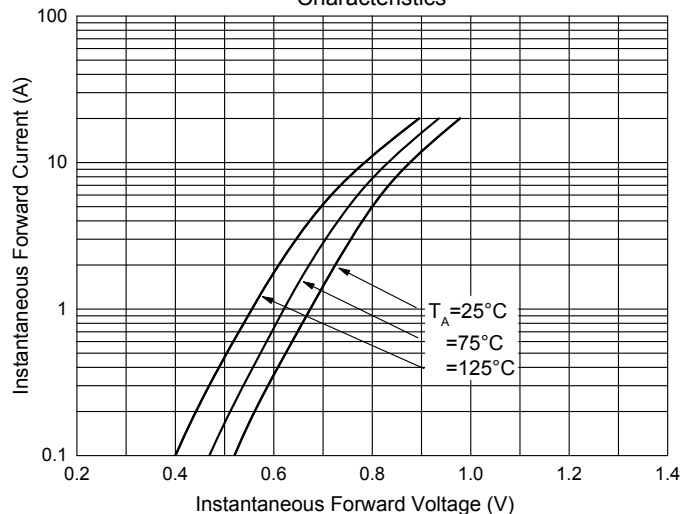


Fig. 5 - MBR10200CTH Typical Instantaneous Forward Characteristics

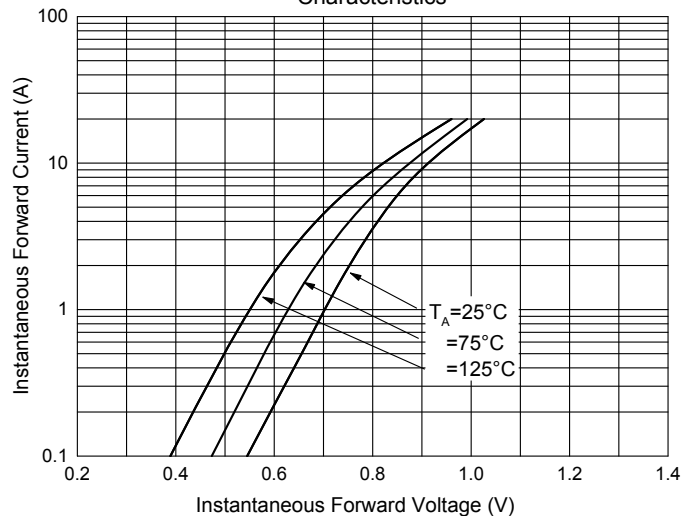
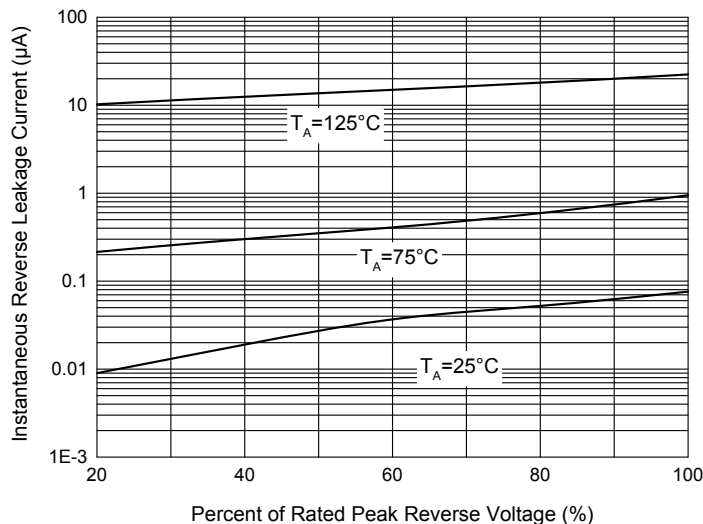


Fig. 6 - Typical Reverse Leakage Characteristics



Ordering Information

Device	Packing
Part Number-BP	Bulk:50pcs/Tube, 1Kpcs/Box, 5Kpcs/Carton

Note : Adding "-HF" Suffix For Halogen Free, eg. Part Number-BP-HF

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