Features

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

10 Amp Schottky Barrier Rectifier 20 to 100 Volts

Maximum Ratings

- Operating Junction Temperature Range: -50ºC to +150ºC
- Storage Temperature Range: -50ºC to +150ºC
- Typical thermal resistance: 3°C/W Junction to Case

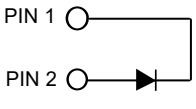
MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBR1020F	MBR1020F	20V	14V	20V
MBR1030F	MBR1030F	30V	21V	30V
MBR1040F	MBR1040F	40V	26V	40V
MBR1050F	MBR1050F	50V	35V	50V
MBR1060F	MBR1060F	60V	42V	60V
MBR1080F	MBR1080F	80V	56V	80V
MBR1090F	MBR1090F	90V	63V	90V
MBR10100F	MBR10100F	100V	80V	100V

Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	10A	T_C = 100°C
Peak Forward Surge Current	I_{FSM}	150A	8.3ms,Half Sine
Maximum Instantaneous Forward Voltage 1020F-1040F 1050F-1060F 1080F-10100F	V_F	0.55V 0.75V 0.85V	I_{FM}=10A T_J=25ºC
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	0.1mA 10mA	T_C=25ºC; T_C=100ºC

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

Internal Structure



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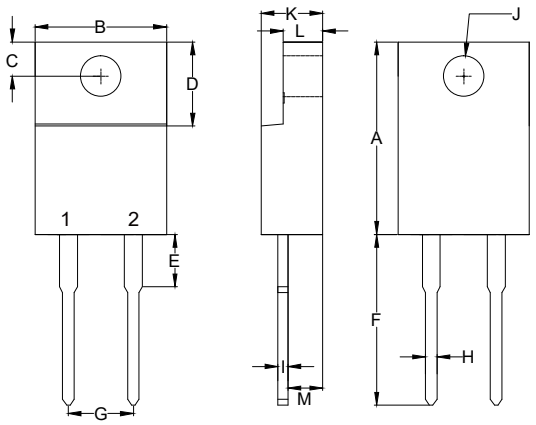


DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.567	0.606	14.40	15.40	
B	-----	0.406	-----	10.30	
C	0.100	0.112	2.55	2.85	
D	0.248	0.272	6.30	6.90	
E	-----	0.161	-----	4.10	
F	0.500	0.543	12.70	13.80	
G	0.200		5.10		
H	-----	0.035	-----	0.90	
I	-----	0.032	-----	0.80	
J	0.102	0.134	2.60	3.40	Φ
K	-----	0.189	-----	4.80	
L	-----	0.123	-----	3.10	
M	0.098	0.114	2.50	2.90	

Curve Characteristics

Fig. 1 - Forward Current Derating Curve

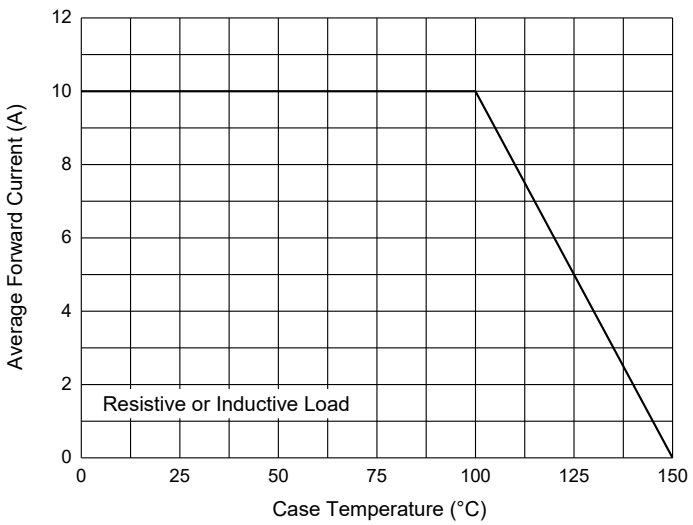


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

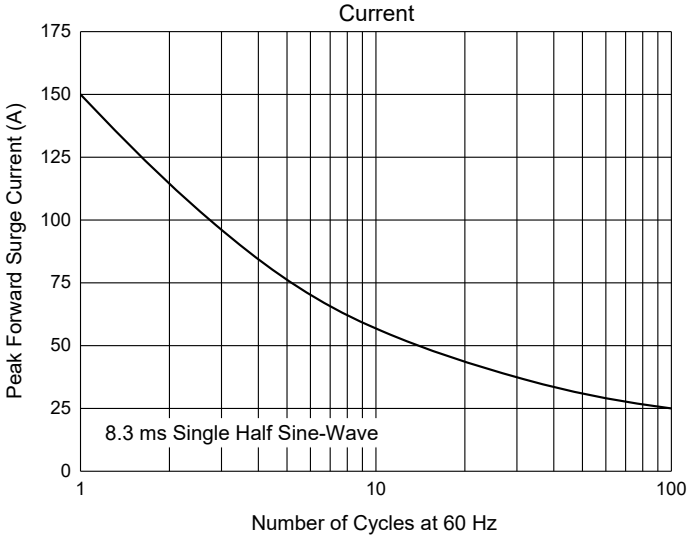


Fig. 3 - Typical Instantaneous Forward Characteristics

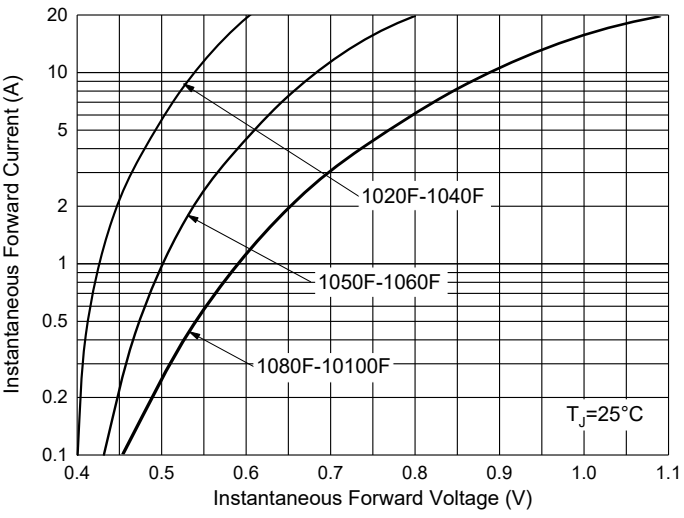
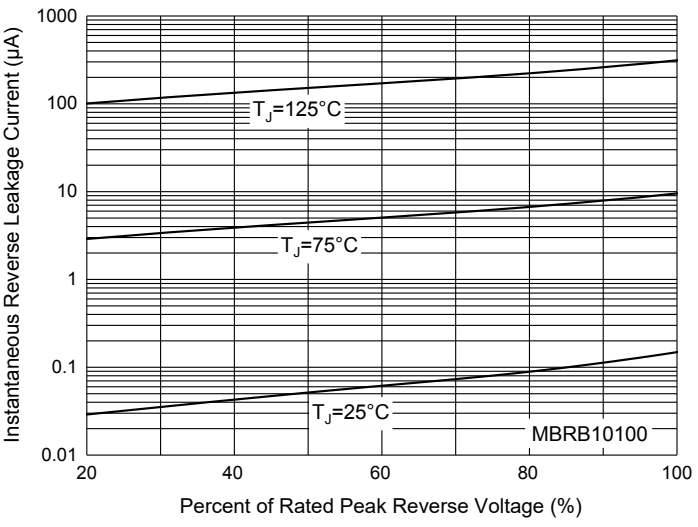


Fig. 4 - Typical Reverse Leakage Characteristics



Curve Characteristics

Fig. 5- Forward Current Derating Curve

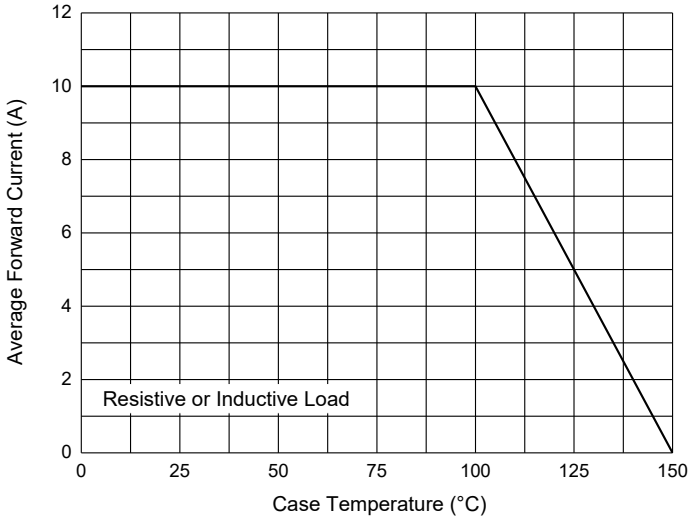


Fig. 6 - Maximum Non-Repetitive Peak Forward Surge Current