

### Features

- Low Forward Voltage Drop
- High Frequency Properties And Switching Speed
- High Current Capability
- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Guard Ring For Over-Voltage Protection
- 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: -65°C to +150°C
- Storage Temperature Range: -65°C to +150°C
- Maximum Thermal Resistance: 4.5°C/W Junction to Case

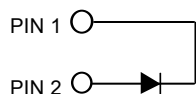
MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBR545F	MBR545F	45V	31.5V	45V

### Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	5A	$T_C=120^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	80A	8.3ms, Half Sine
Maximum Instantaneous Forward Voltage	$V_F$	0.55V 0.49V	$I_F=5A ; T_J=25^\circ\text{C}$ $I_F=5A ; T_J=125^\circ\text{C}$
Maximum DC Reverse Current at Rated DC Blocking Voltage	$I_R$	0.1mA 20mA	$T_J=25^\circ\text{C};$ $T_J=125^\circ\text{C}$

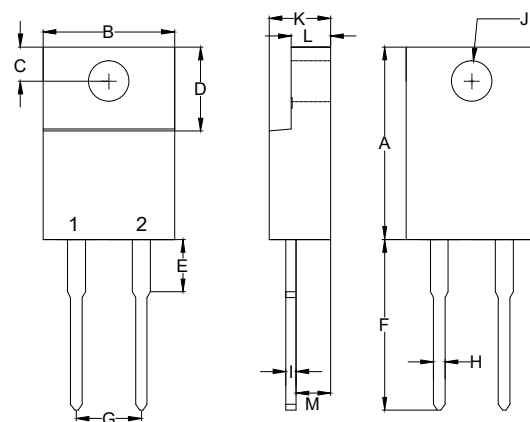
Note :1. High Temperature Solder Exemption Applied, see EU Directive Annex 7a.

### Internal Structure



# 5 Amp Schottky Barrier Rectifier 45 Volts

## ITO-220AC



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	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

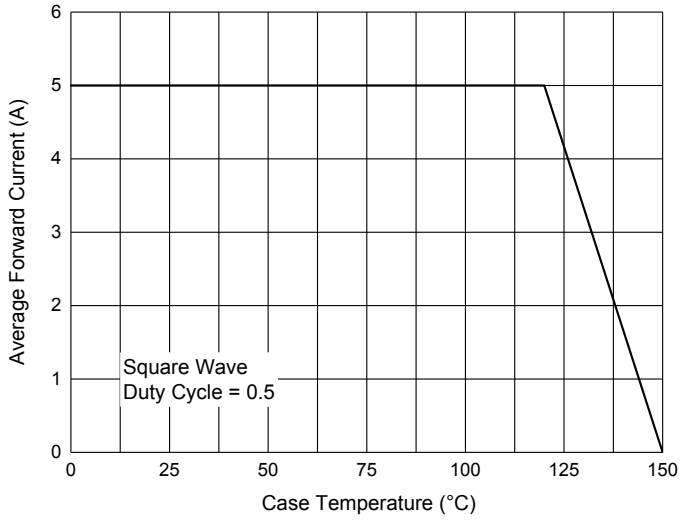


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

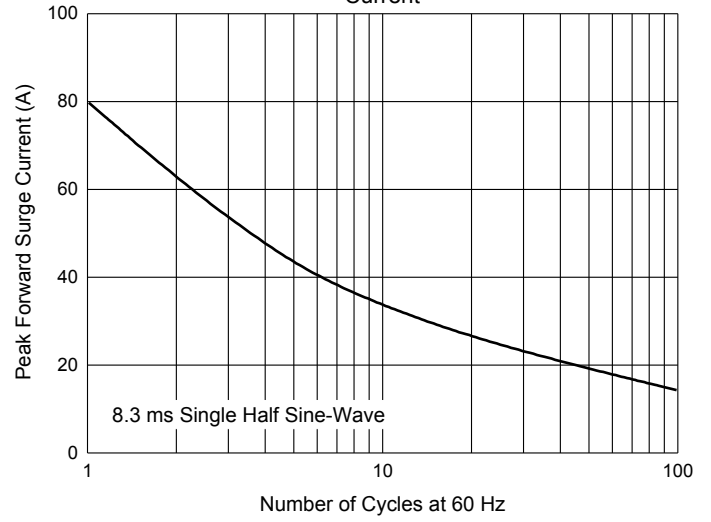


Fig. 3 - Typical Forward Characteristics

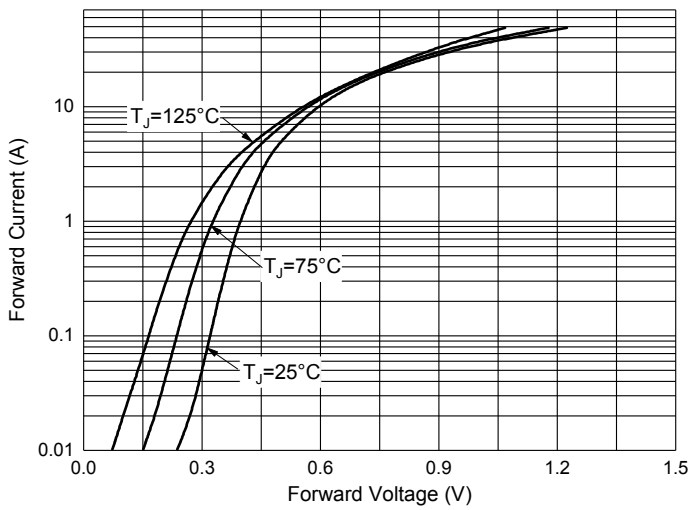
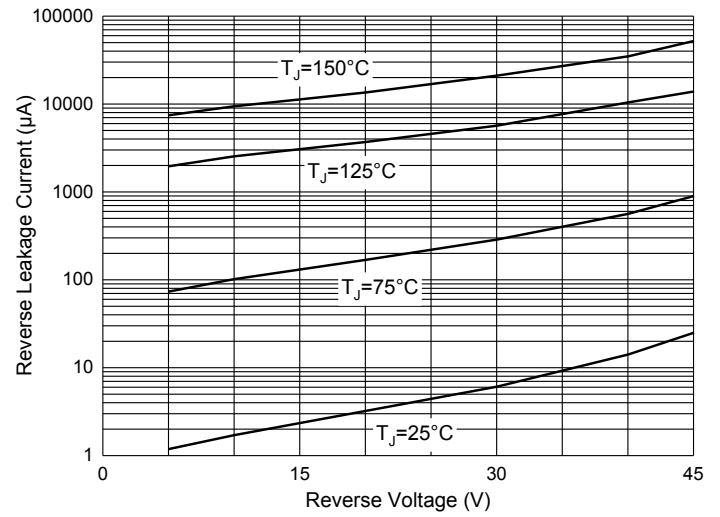


Fig. 4 - Typical Reverse Leakage Characteristics



## 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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