

Features

- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Metal of Silicon Rectifier, Majority Carrier Conduction
- Guard Ring For Transient Protection
- Low Power Loss and High Efficiency
- High Surge Capacity, High Current Capability
- 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 +125°C
- Storage Temperature Range: -55°C to +150°C
- Mounting Torque: 5 in-lbs Maximum

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBR545	MBR545	45V	31.5V	45V

Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	5A	$T_C=95^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	150A	8.3ms, Half Sine
Maximum Forward Voltage Drop Per Element	V_F	0.60V	$I_{FM}=5$ Amper $T_J=25^\circ\text{C}$ (Note 2)
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	0.01mA 10mA	$T_J=25^\circ\text{C};$ $T_J=100^\circ\text{C}$
Typical Junction Capacitance	C_J	350pF	Measured at 1.0MHz, $V_R=4.0V$

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

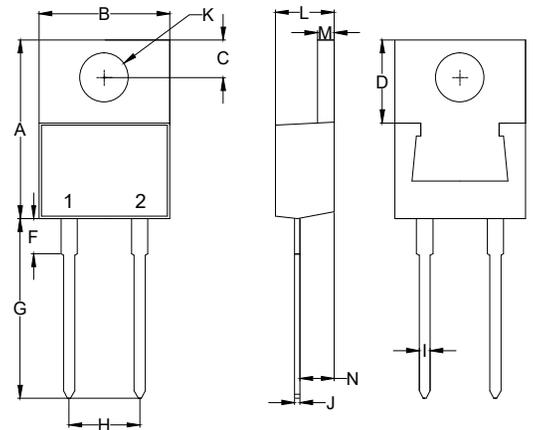
2. Pulse test: Pulse width 300 µsec, Duty cycle 2%

Internal Structure



**5 Amp
Schottky Barrier
Rectifier
45 Volts**

TO-220AC



DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	0.560	0.625	14.22	15.88	
B	0.380	0.420	9.65	10.67	
C	0.100	0.135	2.54	3.43	
D	0.230	0.270	5.84	6.86	
F	----	0.250	----	6.35	
G	0.500	0.580	12.70	14.73	
H	0.190	0.210	4.83	5.33	
I	0.020	0.045	0.51	1.14	
J	0.012	0.025	0.30	0.64	
K	0.139	0.161	3.53	4.09	Φ
L	0.140	0.190	3.56	4.83	
M	0.045	0.055	1.14	1.40	
N	0.080	0.115	2.03	2.92	

Curve Characteristics

Fig. 1 - Forward Current Derating Curve

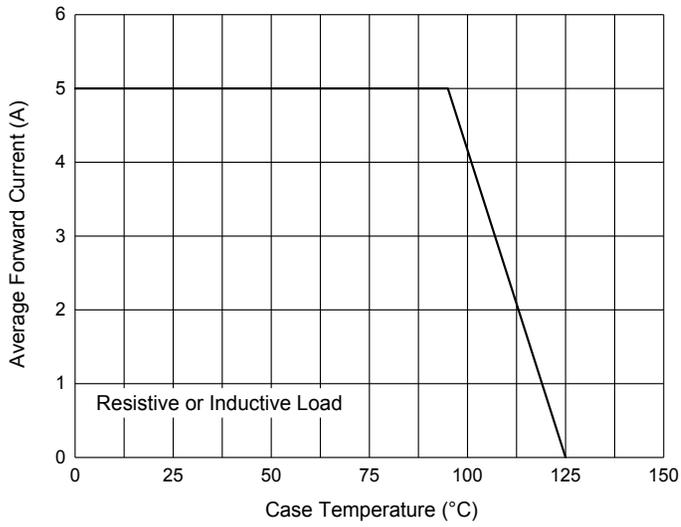


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

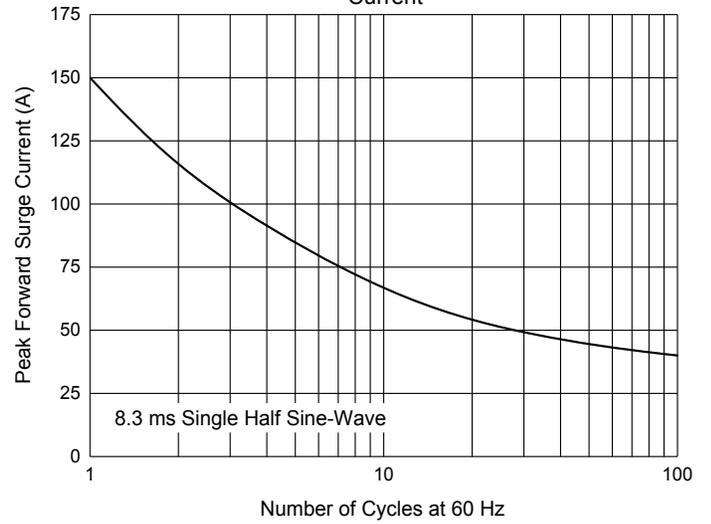


Fig. 3 - Typical Instantaneous Forward Characteristics

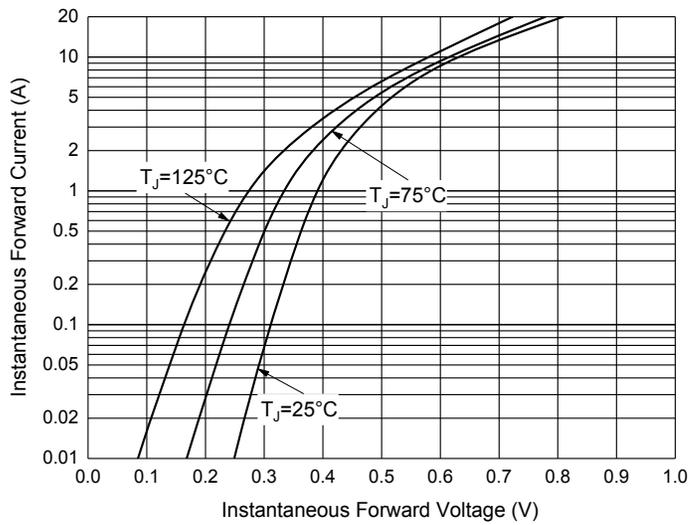
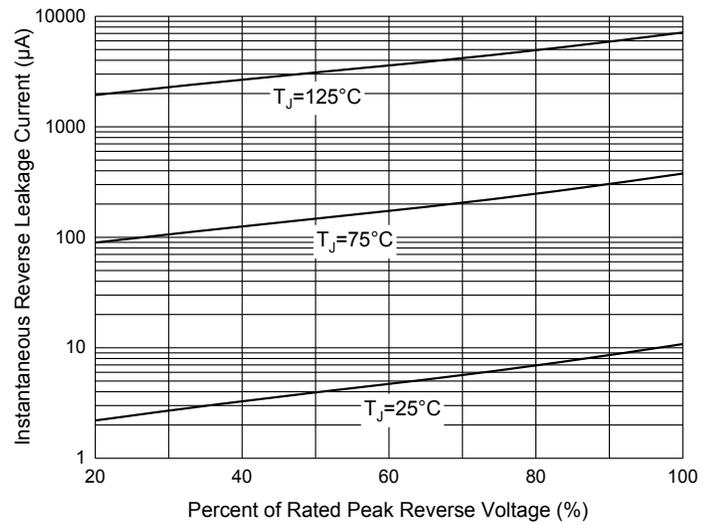


Fig. 4 - Typical Reverse Leakage Characteristics



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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