

Features

- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Guard Ring For Transient Protection
- Low Power Loss 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
- Moisture Sensitivity Level 1

Maximum Ratings

- Mounting Torque: 5 in-lbs Maximum
- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature Range: -55°C to +175°C
- Maximum Thermal Resistance: 3.0°C/W Junction to Case

MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBR720	MBR720	20V	14V	20V
MBR730	MBR730	30V	21V	30V
MBR735	MBR735	35V	24.5V	35V
MBR740	MBR740	40V	28V	40V
MBR745	MBR745	45V	31.5V	45V
MBR760	MBR760	60V	42V	60V

Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	7.5A	$T_C=125^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	150A	8.3ms, Half Sine
Maximum Forward Voltage Drop Per Element MBR720 - 745 MBR760	V_F	0.84V 0.75V	$I_{FM}=15$ Amper $I_{FM}=7.5$ Amper $T_J=25^\circ\text{C}$ (Note 2)
Maximum DC Reverse Current At Rated DC Blocking Voltage MBR720~MBR745 MBR760 MBR720~MBR745 MBR760	I_R	0.1mA 0.05mA 20mA 10mA	$T_J=25^\circ\text{C};$ $T_J=125^\circ\text{C}$
Typical Junction Capacitance	C_J	400pF	Measured at 1.0MHz, $V_R=4.0\text{V}$

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

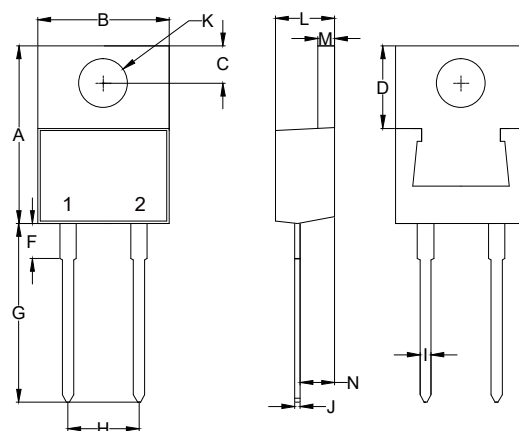
2. Pulse test: Pulse width 300 μsec , Duty cycle 2%

Internal Structure



**7.5 Amp
Schottky
Barrier Rectifier
20 to 60 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

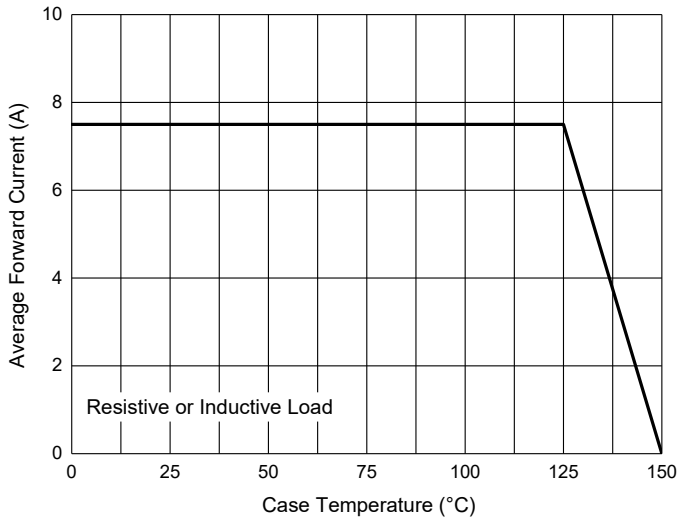


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

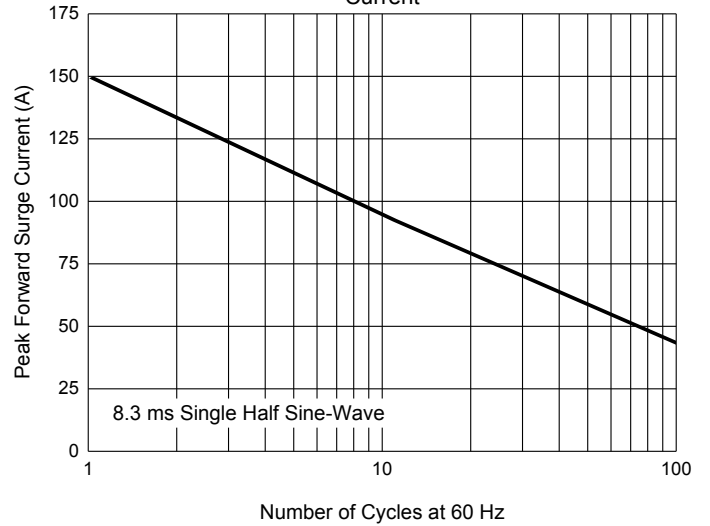


Fig. 3 - Typical Instantaneous Forward Characteristics

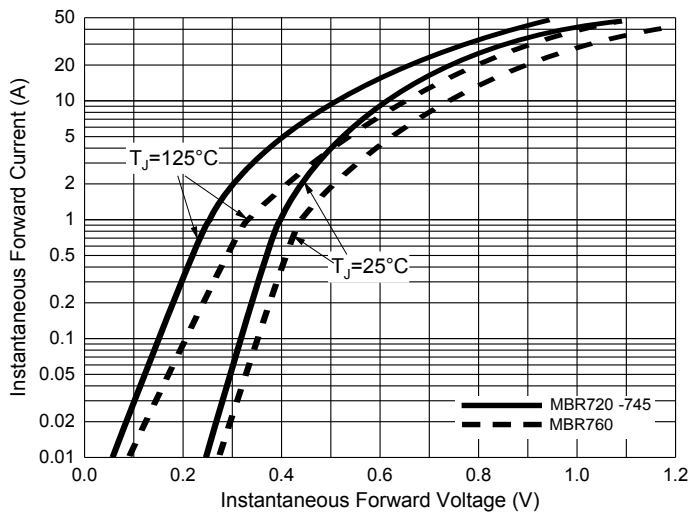


Fig. 4 - Typical Reverse Leakage Characteristics

