

# MBR720 THRU MBR760

## 7.5 Amp Schottky Barrier Rectifier 20 to 60 Volts

### Features

- Metal of siliconrectifier, majority carrier conducton
- 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 RoHS Compliant. See ordering information)
- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0 and MSL Rating 1

### Maximum Ratings

- Mounting Torque: 5 in-lbs Maximum
- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +175°C

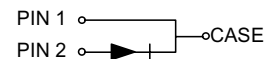
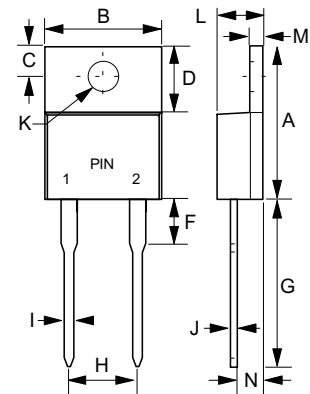
Microsemi Catalog Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBR720	MBR720	20V	14V	20V
MBR730	MBR730	30V	21V	30V
MBR735	MBR735	35V	24.5V	35V
MBR740	MBR740	40V	28V	40V
MBR745	MBR745	45V	31.5V	45V
MBR760	MBR760	60V	42V	60V

### 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	$V_F$	.84V .75V	$I_{FM} = 15 \text{ A mper}$ $I_{FM} = 7.5 \text{ A mper}$ $T_A = 25^\circ\text{C}$ (Note 2)
Maximum DC Reverse Current At Rated DC Blocking Voltage MBR720-745 MBR760 MBR720-745 MBR760	$I_R$	0.1mA 0.5mA 15mA 50mA	$T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$
Typical Junction Capacitance	$C_J$	400pF	Measured at 1.0MHz, $V_R=4.0\text{V}$

Notes: 1. High Temperature Solder Exemption Applied, see EU Directive Annex 7.  
 2. Pulse test: Pulse width 300  $\mu\text{sec}$ , Duty cycle 2%

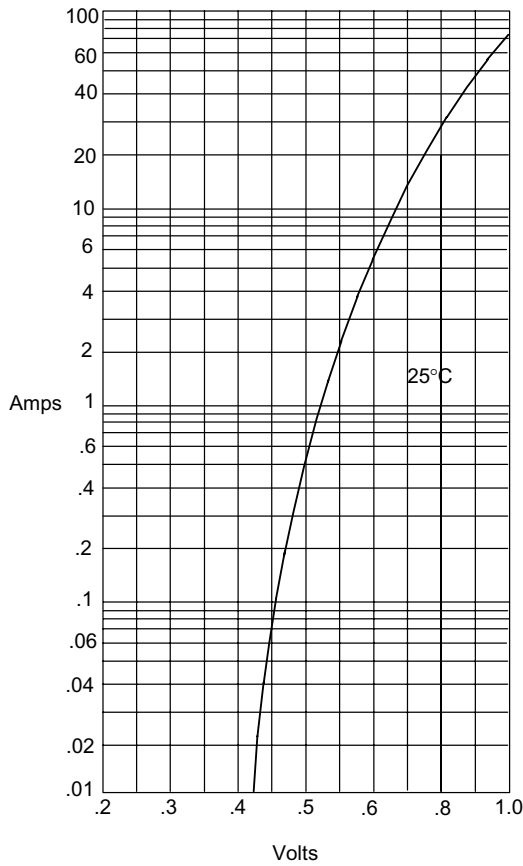
### TO-220AC



DIM	DIMENSIONS				NOTE
	INCHES		MM		
A	MIN .560	MAX .625	MIN 14.22	MAX 15.88	
B	.380	.420	9.65	10.67	
C	.100	.135	2.54	3.43	
D	.230	.270	5.84	6.86	
F	-----	.250	-----	6.35	
G	.500	.580	12.70	14.73	
H	.190	.210	4.83	5.33	
I	.020	.045	0.51	1.14	
J	.012	.025	0.30	0.64	
K	.139	.161	3.53	4.09	∅
L	.140	.190	3.56	4.83	
M	.045	.055	1.14	1.40	
N	.080	.115	2.03	2.92	

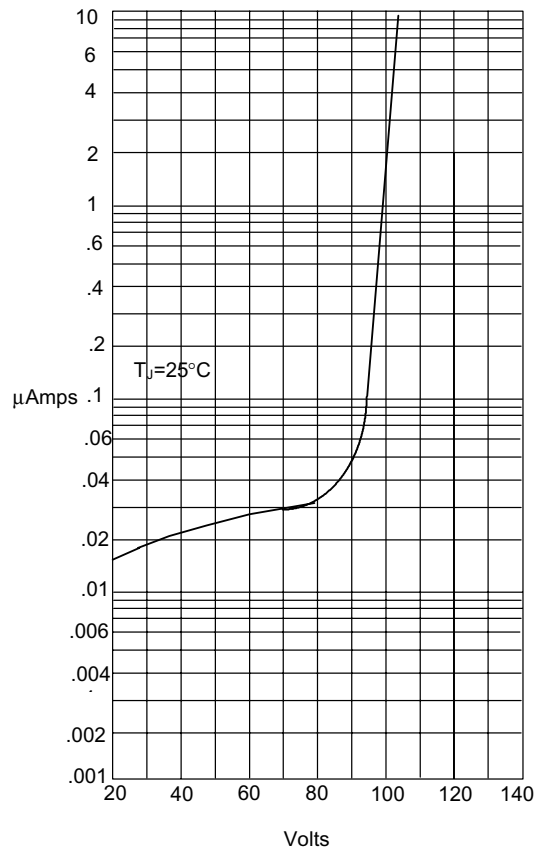
# MBR720 thru MBR760

Figure 1  
Typical Forward Characteristics



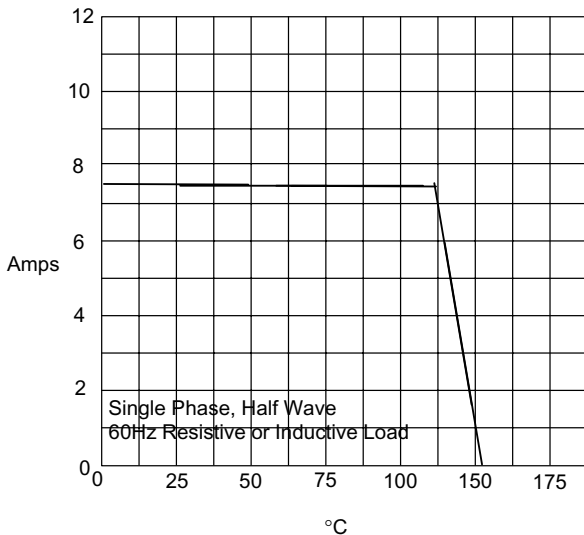
Instantaneous Forward Current - Amperes *versus* Instantaneous Forward Voltage - Volts

Figure 2  
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Typical Reverse Characteristics



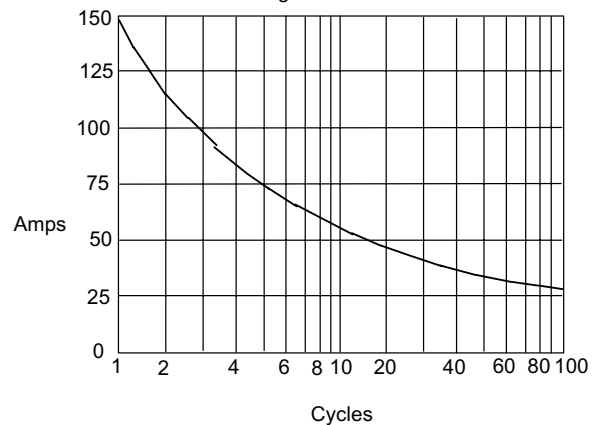
Instantaneous Reverse Leakage Current - MicroAmperes *versus* Percent Of Rated Peak Reverse Voltage - Volts

Figure 3  
Forward Derating Curve



Average Forward Rectified Current - Amperes *versus* Ambient Temperature - °C

Figure 4  
Peak Forward Surge Current



Peak Forward Surge Current - Amperes *versus* Number Of Cycles At 60Hz - Cycles



Micro Commercial Components

## Ordering Information

Device	Packing
(Part Number)-BP	Bulk;1Kpcs/Box

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