

**Micro Commercial Components** 

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# MBR720 THRU MBR760

# 7.5 Amp Schottky Barrier Rectifier 20 to 60 Volts

## **Features**

- Metal of siliconrectifier, majorty 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** 

- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +175°C

Microsemi Catalog Number	Device Marking	Maximum Recurrent Peak	Maximum RMS	Maximum DC Blocking
Number		Reverse Voltage	Voltage	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

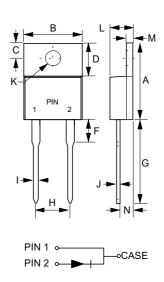
Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	I <sub>F(AV)</sub>	7.5A	T <sub>C</sub> = 125°C
Peak Forward Surge Current	I <sub>FSM</sub>	150A	8.3ms, half sine
Maximum Forward Voltage Drop Per Element MBR720-745 MBR760	V <sub>F</sub>	.84V .75V	I <sub>FM</sub> = 15 A mper I <sub>FM</sub> = 7.5 A mper T <sub>A</sub> = 25°C (Note 2)
Maximum DC Reverse Current At Rated DC Blocking Voltage MBR720-745 MBR760 MBR720-745 MBR760	I <sub>R</sub>	0.1mA 0.5mA 15mA 50mA	T <sub>J</sub> = 25°C T <sub>J</sub> = 125°C
Typical Junction Capacitance	CJ	400pF	Measured at 1.0MHz, V <sub>R</sub> =4.0V

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

2. Pulse test: Pulse width 300  $\,\mu sec,\, Duty\, cycle\, 2\%$ 

## **TO-220AC**

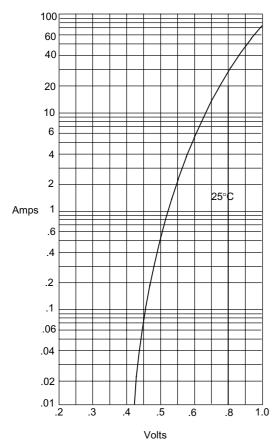


DIMENSIONS						
	INCHES		ММ			
DIM	MIN	MAX	MIN	MAX	NOTE	
Α	.560	.625	14.22	15.88		
В	.380	.420	9.65	10.67		
С	.100	.135	2.54	3.43		
D	.230	.270	5.84	6.86		
F		.250		6.35		
G	.500	.580	12.70	14.73		
Н	.190	.210	4.83	5.33		
	.020	.045	0.51	1.14		
۲	.012	.025	0.30	0.64		
K	.139	.161	3.53	4.09	Ø	
L	.140	.190	3.56	4.83		
М	.045	.055	1.14	1.40		
N	.080	.115	2.03	2.92		



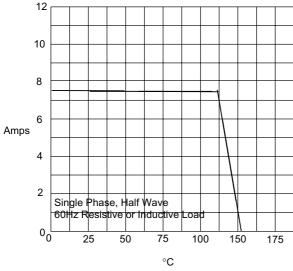
### MBR720 thru MBR760

Figure 1
Typical Forward Characteristics



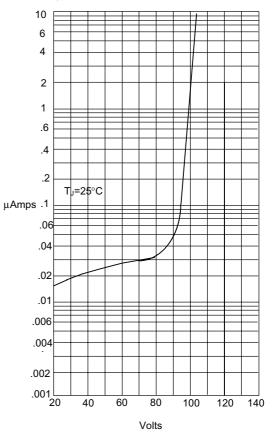
Instantaneous Forward Current - Amperesversus Instantaneous Forward Voltage - Volts

Figure 3
Forward Derating Curve

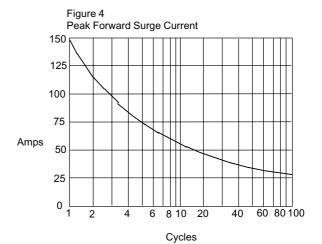


Average Forward Rectified Current - Amperes/ersus Ambient Temperature -°C

Figure 2 Micro Commercial Components
Typical Reverse Characteristics



Instantaneous Reverse Leakage Current - MicroAmperesersus Percent Of Rated Peak Reverse Voltage - Volts



Peak Forward Surge Current - Amperesversus Number Of Cycles At 60Hz - Cycles



## **Ordering Information**

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

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Revision: 6 3 of 3 2008/01/01