

# MBR1020 THRU MBR10100

## 10 Amp Schottky Barrier Rectifier 20 to 100 Volts

### Features

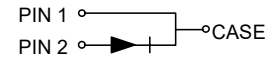
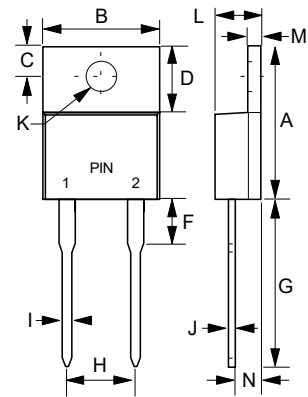
- Metal of siliconrectifier, majonty carrier conducton
- Guard ring for transient protection
- Low power loss high efficiency
- High surge capacity, High current capability
- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Halogen free available upon request by adding suffix "-HF"

### Maximum Ratings

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

MCC Catalog Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBR1020	MBR1020	20V	14V	20V
MBR1030	MBR1030	30V	21V	30V
MBR1035	MBR1035	35V	24.5V	35V
MBR1040	MBR1040	40V	28V	40V
MBR1045	MBR1045	45V	31.5V	45V
MBR1060	MBR1060	60V	42V	60V
MBR1080	MBR1080	80V	56V	80V
MBR10100	MBR10100	100V	70V	100V

### TO-220AC



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

Average Forward Current	$I_{F(AV)}$	10A	$T_C = 125^\circ C$
Peak Forward Surge Current	$I_{FSM}$	150A	8.3ms, half sine
Maximum Forward Voltage Drop Per Element	$V_F$	MBR1020-1045 MBR1060 MBR1080-10100 MBR1060	.65V .75V .84V .65V
		MBR1020-1045 MBR1060	.84V .95V .80V
			$I_{FM} = 10A$ $I_{FM} = 10A$ $I_{FM} = 10A$ $I_{FM} = 10A, T_J = 125^\circ C$
			$I_{FM} = 20A$ $I_{FM} = 20A$ $I_{FM} = 20A, T_J = 125^\circ C$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	0.1mA	$T_J = 25^\circ C$
Junction Temperature	$T_J$	MBR1020-MBR1045 MBR1060-MBR10100	-55~+125 °C -55~+150 °C

DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	.560	.625	14.22	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	

Notes1. High Temperature Solder Exemption Applied, see EU Directive Annex 7a

## MBR1020 thru MBR10100

Figure 1  
Typical Forward Characteristics

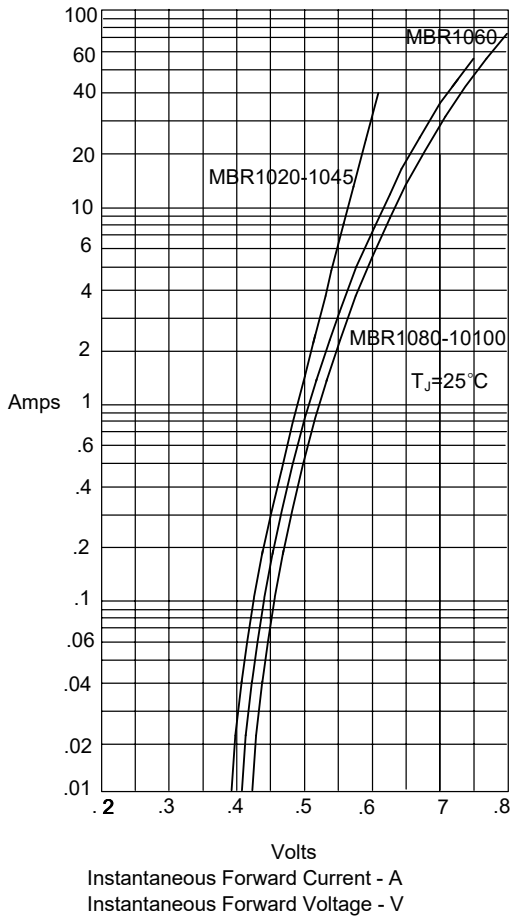


Figure 2  
Typical Reverse Characteristics

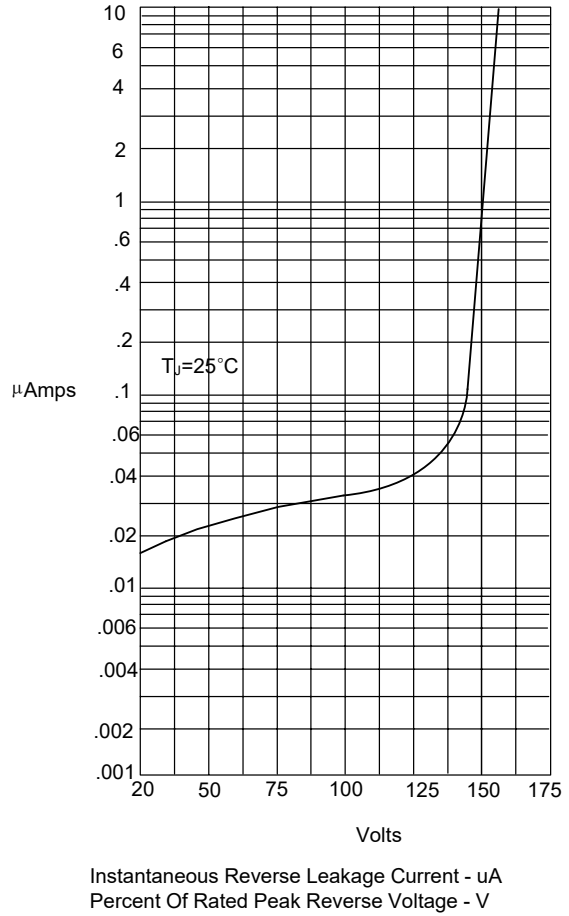


Figure 3  
Forward Derating Curve

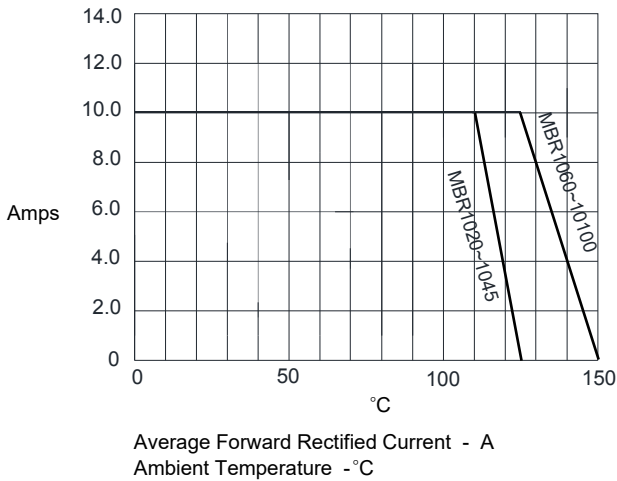
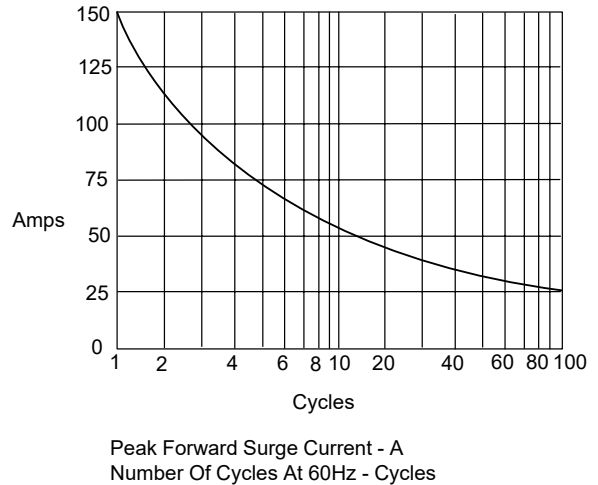


Figure 4  
Peak Forward Surge Current





## Ordering Information

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

Note : Adding "-HF" suffix for halogen free, eg. Part Number-BP-HF

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