



Micro Commercial Components  
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# MBR1020 THRU MBR10100

## Features

- Metal of siliconrectifier, majonty carrier conducton
- Guard ring for transient protection
- Low power loss high efficiency
- High surge capacity, High current capability

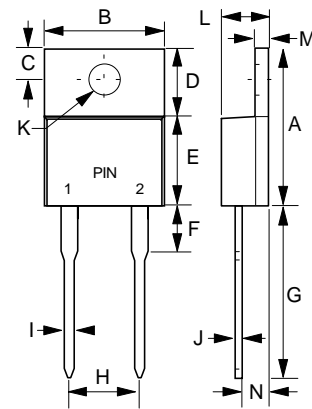
## Maximum Ratings

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

# 10 Amp Schottky Barrier Rectifier 20 to 100 Volts

Microsemi 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

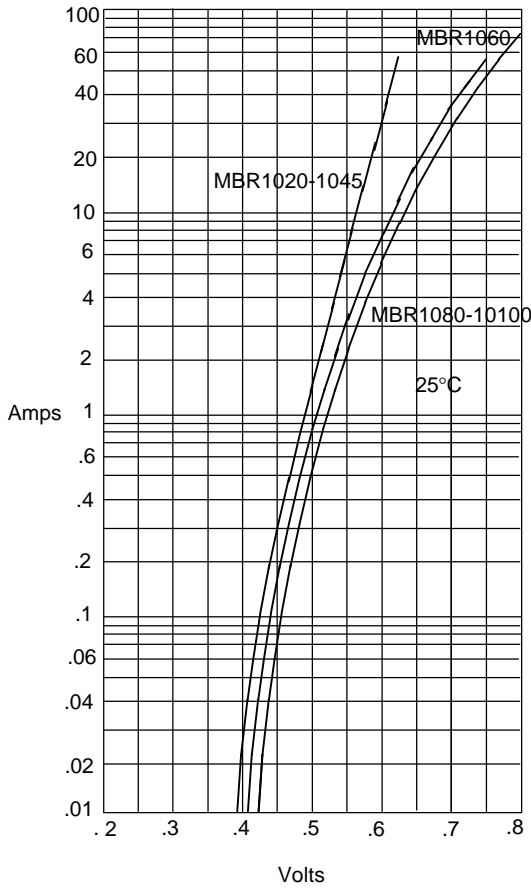
Average Forward Current	$I_{F(AV)}$	10A	$T_C = 125^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	150A	8.3ms, half sine
Maximum Forward Voltage Drop Per Element MBR1020-1045 MBR1045-1060 MBR1080-10100	$V_F$	.84V .95V .84V	$I_{FM} = 20 \text{ A mper}$ $T_A = 25^\circ\text{C}$ $I_{FM} = 10 \text{ A mper}$
Maximum DC Reverse Current At Rated DC Blocking Voltage MBR1020-1045 MBR1060-10100	IR	0.1mA 0.15mA	$T_J = 25^\circ\text{C}$
Typical Junction Capacitance	$C_J$	400pF	Measured at 1.0MHz, $V_R=4.0\text{V}$

DIM	DIMENSIONS				NOTE
	INCHES		MM		
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	
E	.380	.420	9.65	10.67	
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	

\*Pulse test: Pulse width 300 μsec, Duty cycle 1%

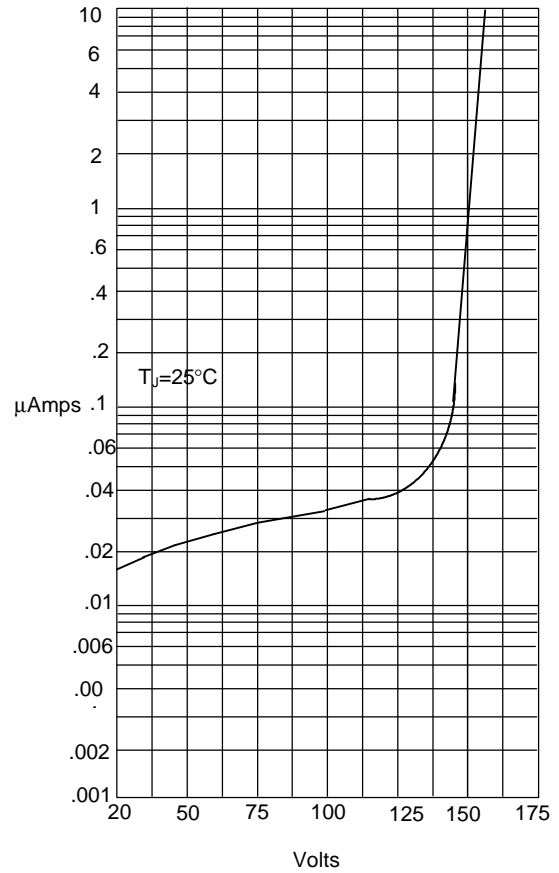
# MBR1020 thru MBR10100

Figure 1  
Typical Forward Characteristics



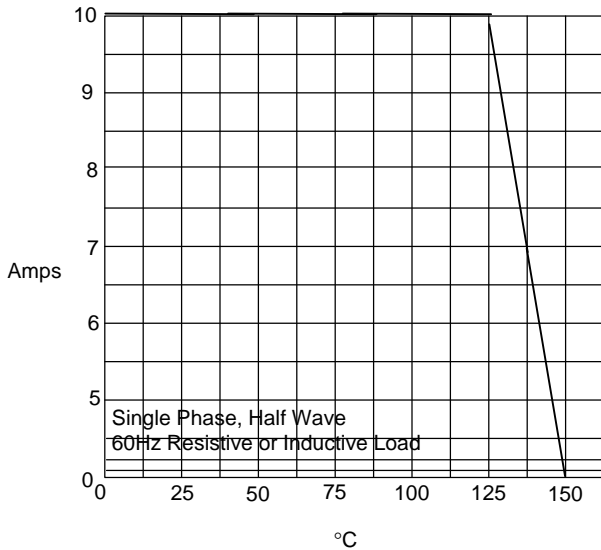
Instantaneous Forward Current - Amperes versus  
Instantaneous Forward Voltage - Volts

Figure 2  
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