Micro Commercial Components
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MBR1620 THRU MBR1660

16 Amp Schottky Barrier Rectifier 20 to 60 Volts

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

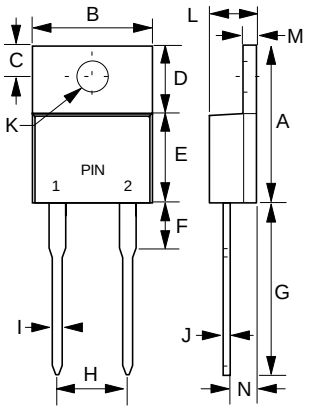
- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +175°C

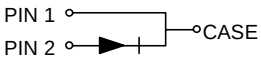
Microsemi Catalog Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBR1620	MBR1620	20V	14V	20V
MBR1630	MBR1630	30V	21V	30V
MBR1635	MBR1635	35V	24.5V	35V
MBR1640	MBR1640	40V	28V	40V
MBR1645	MBR1645	45V	31.5V	45V
MBR1660	MBR1660	60V	42V	60V

Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	16A	T_C = 125°C
Peak Forward Surge Current	I_{FSM}	150A	8.3ms, half sine
Maximum Forward Voltage Drop Per Element MBR1620-1645 MBR1660 MBR1620-1645 MBR1660	V_F	.63V .75V .57V .65V	I_{FM} = 16A T_J = 25°C T_J = 125°C
Maximum DC Reverse Current At Rated DC Blocking Voltage MBR1620-1645 MBR1660 MBR1620-1645 MBR1660	IR	0.2mA 1mA 40mA 50mA	T_J = 25°C T_J = 25°C T_J = 125°C T_J = 125°C
Typical Junction Capacitance	C_J	450pF	Measured at 1.0MHz, V_R=4.0V

TO-220AC

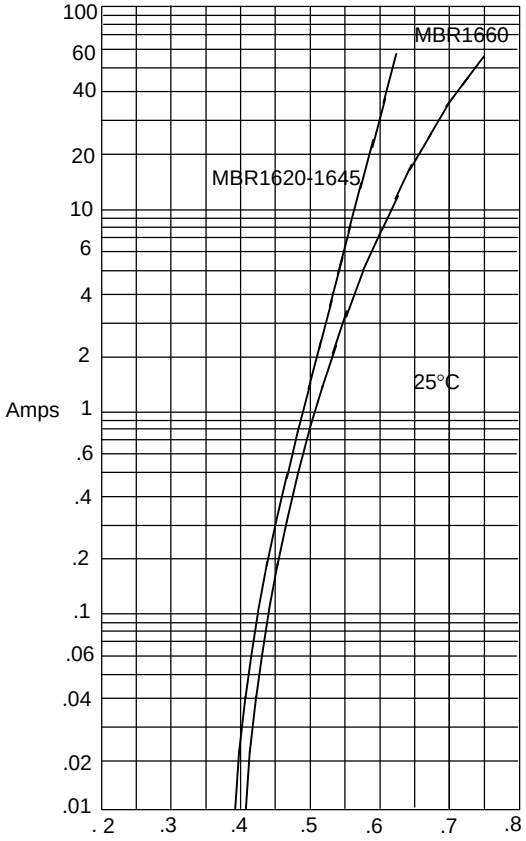




DIMENSIONS					
	INCHES		MM		
DIM	MIN	MAX	MIN	MAX	NOTE
A	.560	.625	14.22	15.88	
B	.380	.420	9.65	10.67	
C	.100	.135	2.54	3.43	
D	.230	.270	5.84	6.86	
E	.380	.420	9.65	10.67	
F	------	.250	------	6.35	
G	.500	.580	12.70	14.73	
H	.190	.210	4.83	5.33	
I	.020	.045	0.51	1.14	
J	.012	.025	0.30	0.64	
K	.139	.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	

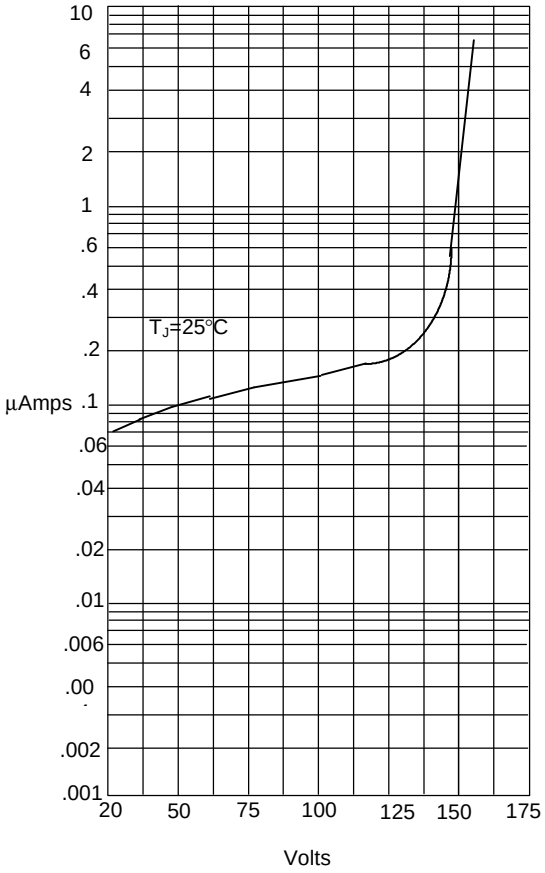
MBR1620 thru MBR1660

Figure 1
Typical Forward Characteristics



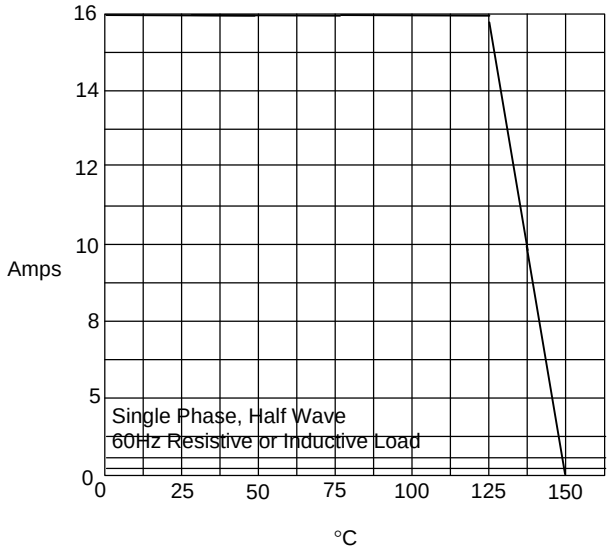
Instantaneous Forward Current - Amperes *versus*
Instantaneous Forward Voltage - Volts

Figure 2
Typical Reverse Characteristics



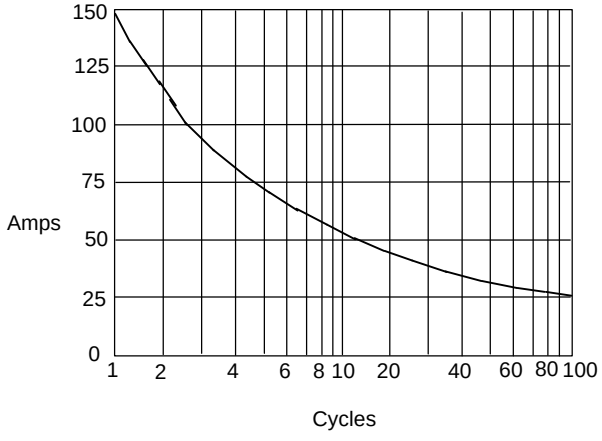
Instantaneous Reverse Leakage Current - MicroAmperes *versus*
Percent Of Rated Peak Reverse Voltage - Volts

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