

M·C·C

Micro Commercial Components
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MBR8020

THRU

MBR80100

Features

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

Maximum Ratings

- Operating Temperature: -65°C to +150°C
- Storage Temperature: -65°C to +150°C

MCC Part Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBR8020	20V	14V	20V
MBR8030	30V	21V	30V
MBR8035	35V	24.5V	35V
MBR8040	40V	28V	40V
MBR8045	45V	31.5V	45V
MBR8060	60V	42V	60V
MBR8080	80V	56V	80V
MBR80100	100V	70V	100V

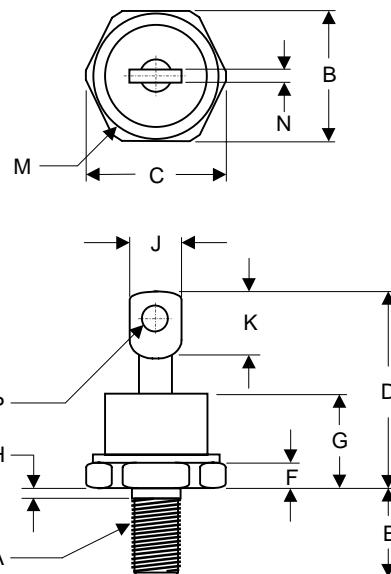
Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	80 A	$T_L = 120^\circ\text{C}$
Peak Forward Surge Current	I_{FSM}	1000A	8.3ms, half sine
Maximum Instantaneous Forward Voltage	V_F		$I_{FM} = 80.0\text{A}; T_A = 25^\circ\text{C}$
MBR8020-8045		.63 V	
MBR8060		.75 V	
MBR8080-80100		.84 V	
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	1.0 mA	$T_A = 25^\circ\text{C}$
Typical Junction Capacitance	C_J	240pF	Measured at 1.0MHz, $V_R=4.0\text{V}$

*Pulse Test: Pulse Width 300μsec, Duty Cycle 1%

**80 Amp
Schottky Barrier
Rectifier
20 to 100 Volts**

DO-5

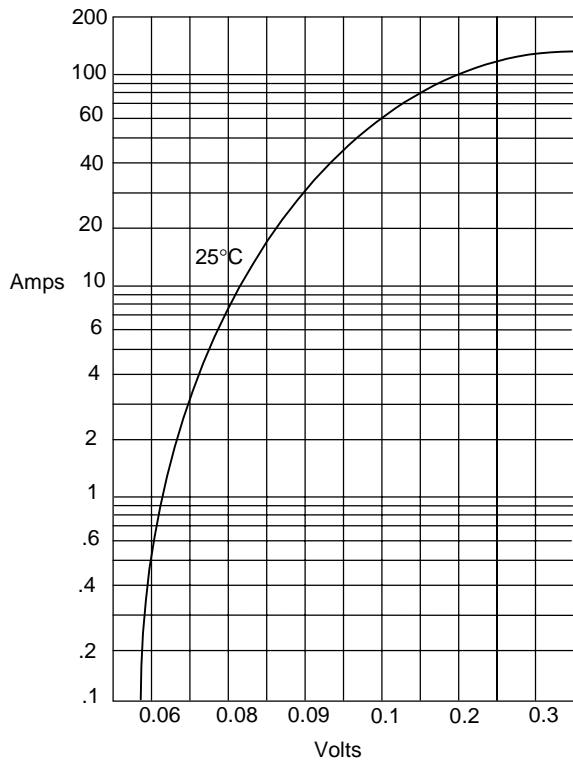


DIM	DIMENSIONS				NOTE
	INCH ES		MM		
	MIN	MAX	MIN	MAX	
A	1/4-28 Threads		Standard		Polarity
B	.669	.687	17.19	17.44	
C	----	.794	----	20.16	
D	----	1.000	----	25.40	
E	.422	.453	10.72	11.50	
F	.115	.200	2.93	5.08	
G	----	.450	----	11.43	
H	.220	.249	5.58	6.32	
J	----	.375	----	9.52	
K	.156	----	3.96	----	
M	----	.667	----	16.94	Ø
N	----	.080	----	2.03	
P	.140	.175	3.56	4.45	Ø

MBR8020 thru MBR80100

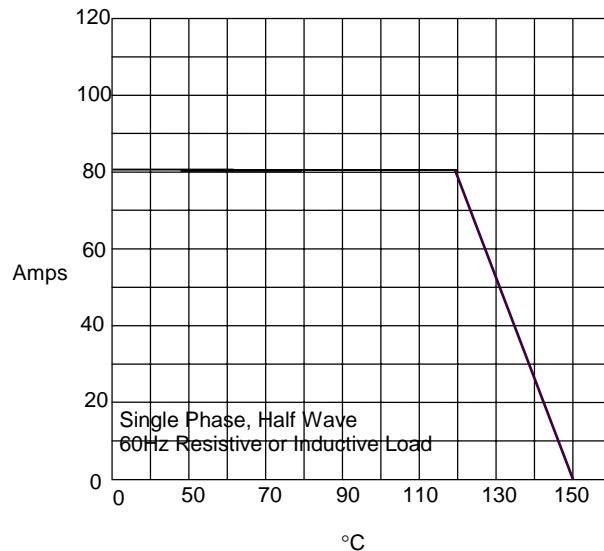
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Figure 1
Typical Forward Characteristics



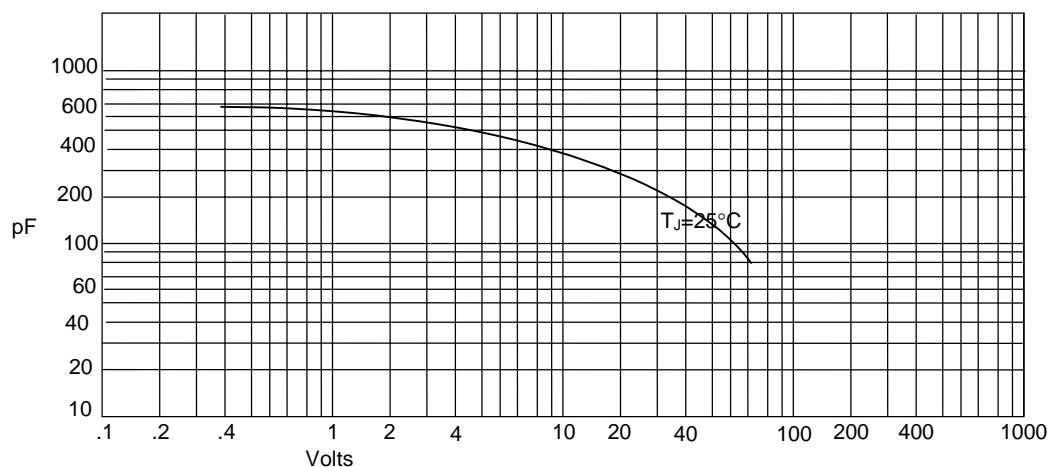
Instantaneous Forward Current - Amperes versus
Instantaneous Forward Voltage - Volts

Figure 2
Forward Derating Curve



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

Figure 3
Junction Capacitance

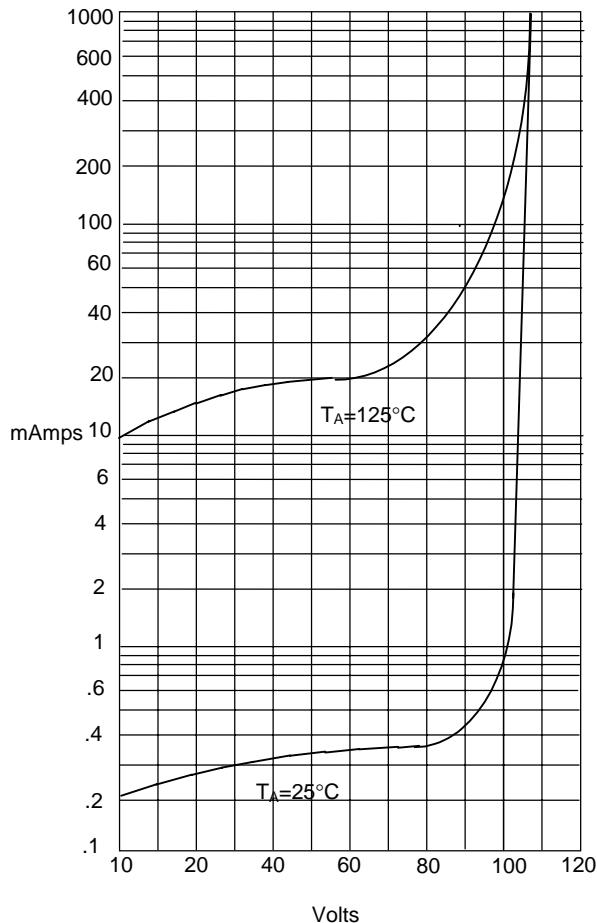


Junction Capacitance - pF versus
Reverse Voltage - Volts

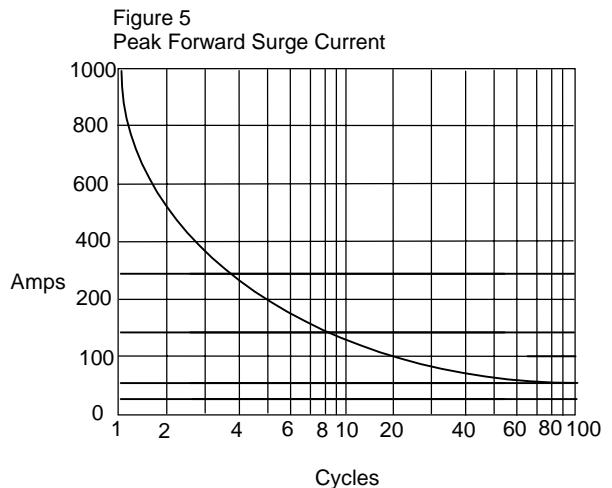
MBR8020 thru MBR80100

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Figure 4
Typical Reverse Characteristics



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



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