



Micro Commercial Components  
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# MBR2020 THRU MBR20100

## 20 Amp Schottky Barrier Rectifier 20 to 100 Volts

### Features

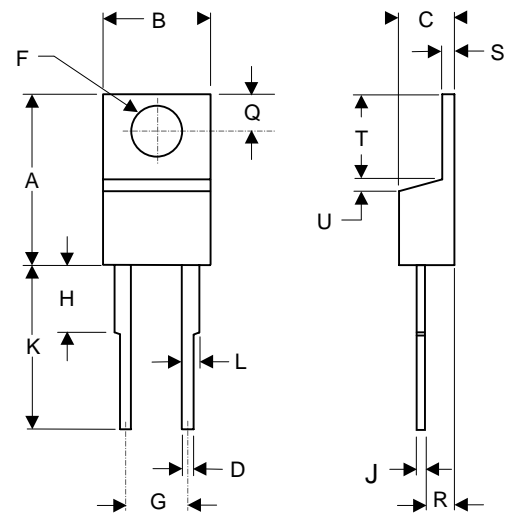
- Metal of siliconrectifier, majonty carrier conducton
- Guard ring for transient protection
- Low power loss high efficiency
- High surge capacity, High current capability

### Maximum Ratings

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

Microsemi Catalog Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
MBR2020	MBR2020	20V	14V	20V
MBR2030	MBR2030	30V	21V	30V
MBR2035	MBR2035	35V	24.5V	35V
MBR2040	MBR2040	40V	28V	40V
MBR2045	MBR2045	45V	31.5V	45V
MBR2060	MBR2060	60V	42V	60V
MBR2080	MBR2080	80V	56V	80V
MBR20100	MBR20100	100V	70V	100V

### TO-220AC



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

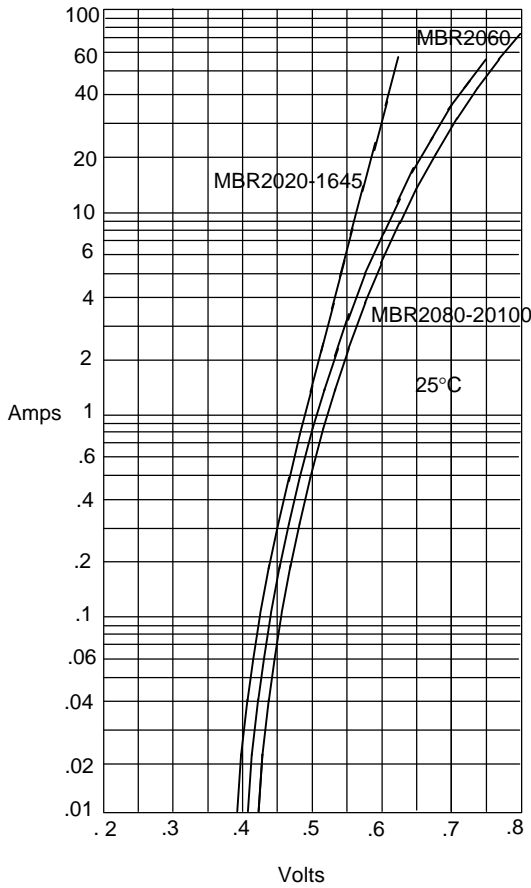
Average Forward Current	$I_{F(AV)}$	20A	$T_C = 135^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	150A	8.3ms, half sine
Maximum Forward Voltage Drop Per Element MBR2020-2045 MBR2060 MBR2080-20100	$V_F$	.63V .75V .84V	$I_{FM} = 20\text{A per element};$ $T_A = 25^\circ\text{C}^*$
Maximum DC Reverse Current At Rated DC Blocking Voltage	IR	0.1mA	$T_J = 25^\circ\text{C}$

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.595	.620	15.11	15.75	
B	.380	.405	9.65	10.29	
C	.160	.190	4.06	4.82	
D	.025	.035	0.64	0.89	
F	.142	.147	3.61	3.73	
G	.190	.210	4.83	5.33	
H	.110	.130	2.79	3.30	
J	.018	.025	0.46	0.64	
K	.500	.562	12.70	14.27	
L	.045	.060	1.14	1.52	
Q	.100	.120	2.54	3.04	
R	.080	.110	2.04	2.79	
S	.045	.055	1.14	1.39	
T	.235	.255	5.97	6.48	
U	-----	.050	-----	1.27	

\*Pulse test: Pulse width 300  $\mu\text{sec}$ , Duty cycle 1%

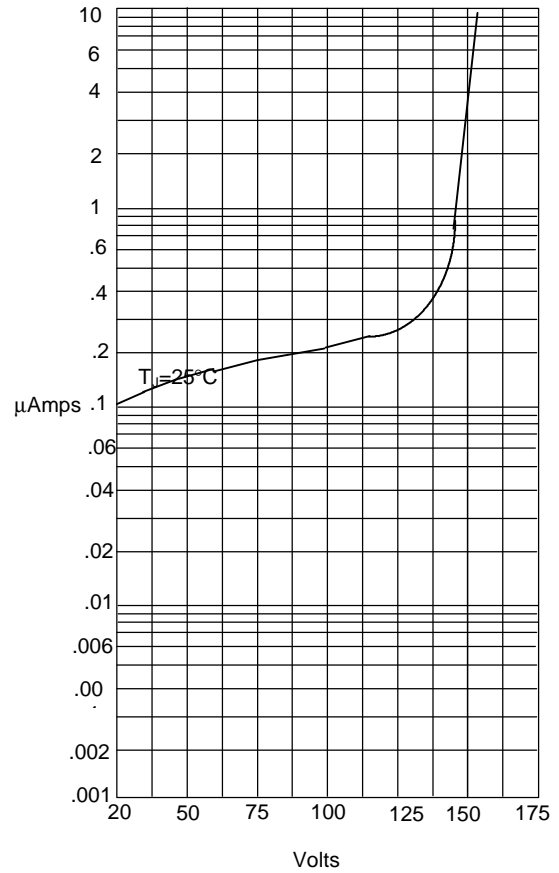
# MBR2020 thru MBR20100

Figure 1  
Typical Forward Characteristics



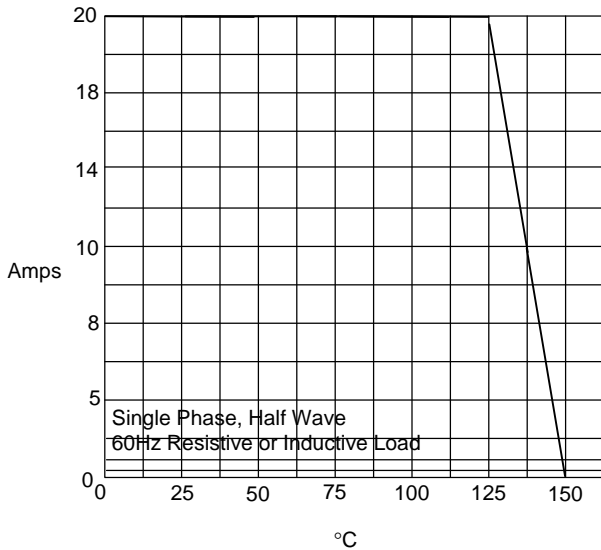
Instantaneous Forward Current - Amperes versus  
Instantaneous Forward Voltage - Volts

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