

## MBR20100 thru MBR20200

### 20 Amp HT Power Schottky Barrier Rectifier

#### 100 Volts to 200 Volts

#### Features

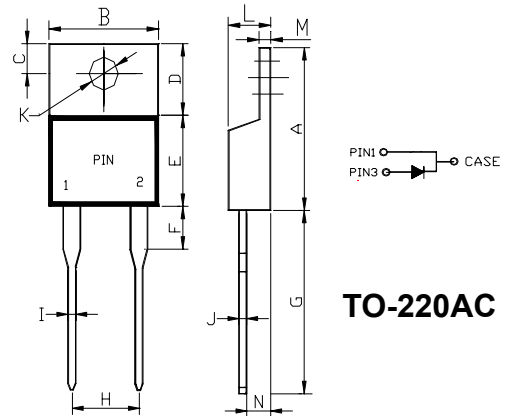
- \* High Junction Temperature Capability
- \* Low Leakage Current and Low Forward Voltage Drop
- \* Low Power Loss and High Efficiency

#### Maximum Ratings

- \* Operating Junction Temperature: 150°C
- \* Storage Temperature: - 55 °C to +175°C
- \* Per diode Thermal Resistance 2.2°C/W Junction to Case

#### Mechanical Data

- \* Case: Molded Plastic
- \* Terminals: Plated Lead Solderable per MIL-STD-202, Method 208
- \* Marking: Type Number
- \* Weight: 2.24 grams (approx)


**TO-220AC**

DIM	DIMENSIONS				NOTE
	INCHES		MM		
	MIN	MAX	MIN	MAX	
A	0.560	0.625	14.22	15.88	
B	0.380	0.420	9.65	10.67	
C	0.100	0.135	2.54	3.43	
D	0.230	0.270	5.84	6.86	
E	0.380	0.420	9.65	10.67	
F	-----	0.250	-----	6.35	
G	0.500	0.580	12.70	14.73	
H	0.190	0.210	4.83	5.33	
I	0.020	0.045	0.51	1.14	
J	0.012	0.025	0.30	0.64	
K	0.139	0.161	3.53	4.09	ch
L	0.140	0.190	3.56	4.83	
M	0.045	0.055	1.14	1.40	
N	0.080	0.115	2.03	2.92	

Symbol	Characteristics	MBR20100	MBR20150	MBR20200	Unit
VRRM	Maximum Recurrent Peak Reverse Voltage	100	150	200	V
VRM	Maximum DC Blocking Voltage	100	150	200	V
VR(RMS)	Maximum RMS Voltage	70	105	140	V
V <sub>F</sub>	Maximum Forward Voltage Drop Per Element I <sub>F</sub> =20A @T <sub>J</sub> =25°C	0.90		0.95	V
I <sub>F(AV)</sub>	Average Forward Current	20			A
I <sub>FSM</sub>	8.3ms Single Half-Sine-Wave Superimposed On Rated Load	150			A
dv/dt	Voltage Rate Of Change (Rated V <sub>R</sub> )	10000			V/us
I <sub>R</sub>	Maximum DC Reverse Current At Rated DC Blocking Voltage	T <sub>J</sub> =25°C 0.2		T <sub>J</sub> =125°C 40	mA
R <sub>thJC</sub>	Typical Thermal Resistance (Note 2)	2.0			°C/ W
C <sub>J</sub>	Typical Junction Capacitance (Note 3)	400			pF
T <sub>J</sub>	Operating Temperature Range	-55to+150			°C
T <sub>STG</sub>	Storage Temperature Range	-55to+175			°C

NOTES: 1. 300us Pulse Width, Duty Cycle 2%.  
 2. Thermal Resistance Junction To Case.  
 3. Measured At 1.0MHz And Applied Reverse Voltage Of 4.0V DC.