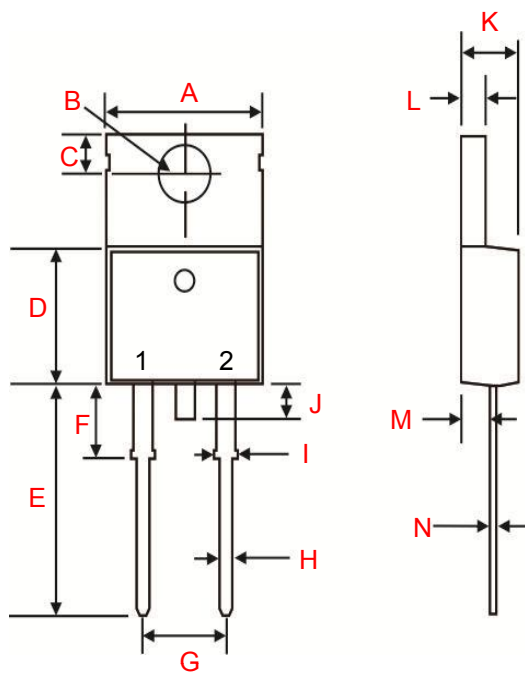


## High Power Schottky Barrier Rectifier

### Package Outline Dimensions ( millimeters )



TO-220AC		
Dim.	Min.	Max.
A	10.01	10.31
B	3.77	3.89
C	2.64	2.95
D	8.76	9.02
E	13.70	14.10
F	3.98	4.23
G	4.98	5.18
H	0.71	0.91
I	1.17	1.52
J	---	1.60
K	4.47	4.67
L	1.17	1.37
M	2.52	2.82
N	0.28	0.48
All Dimensions in millimeter		

### Features

- High Current Capability
- Low Switching Noise
- High Surge Capability
- Low Power Loss & High Efficiency
- Guard Ring Protection
- Pd-free lead plating & Halogen-free part

### Mechanical

- Molded Plastic : TO-220AC
- Plastic materials used carries underwriters laboratory flammability classification 94V-0
- Lead Temperature for Soldering Purposes : 265°C Max. for 10 Seconds
- Device Weight : Approximated 2.24 grams

### Maximum Ratings & Electrical Characteristics ( $T_A = 25^\circ\text{C}$ unless otherwise specified )

Parameter	Symbol	MBR 20100	MBR 20150	MBR 20200	Units
DC Blocking Voltage	$V_{RM}$	100	150	200	Volts
Working Peak Reverse Voltage	$V_{RWM}$	70	105	140	
Peak Repetitive Reverse Voltage	$V_{RRM}$	100	150	200	
Average Rectified Output Current	$I_O$	20			Amps
Non-Repetitive Peak Forward Surge Current (Surge applied at rated load conditions half wave, single phase, 60Hz)	$I_{FSM}$	350			Amps
Instantaneous Forward Voltage $I_F = 20A, T_A = 25^\circ\text{C}$	$V_F$	0.85	0.87	0.9	Volts
Instantaneous Reverse Current $V_R = V_{RRM}, T_A = 25^\circ\text{C}$ $V_R = V_{RRM}, T_A = 125^\circ\text{C}$	$I_R$	0.1 10			mA

NOTE : 1. Thermal resistance from junction to case per leg, with heatsink(1.35" x 0.95" x 0.18") Al-plate.

**Thermal Characteristics** (  $T_A = 25^\circ\text{C}$  unless otherwise specified )

Parameter	Symbol	Value	Units
Maximum Thermal Resistance Junction to Case	$R\theta_{JC}$	3.5	$^\circ\text{C} / \text{W}$
Operating & Storage Junction Temperature	$T_J$	150	$^\circ\text{C}$
	$T_{STG}$	- 65 to +150	

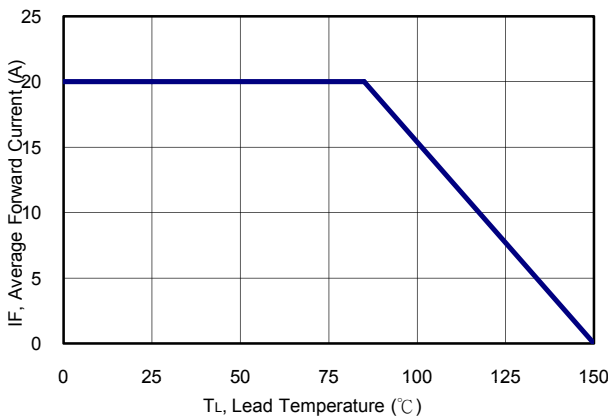
**Ratings and Characteristics Curves** (  $T_A = 25^\circ\text{C}$  unless otherwise specified )


Figure 1: Current Derating Curves

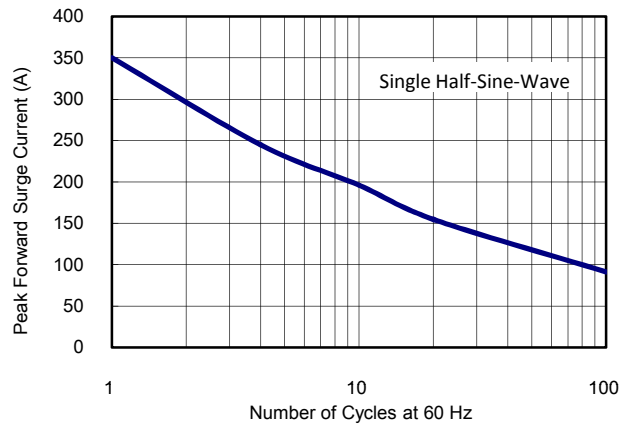
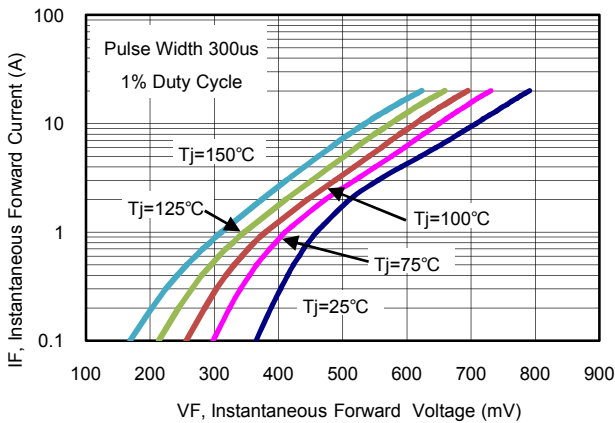
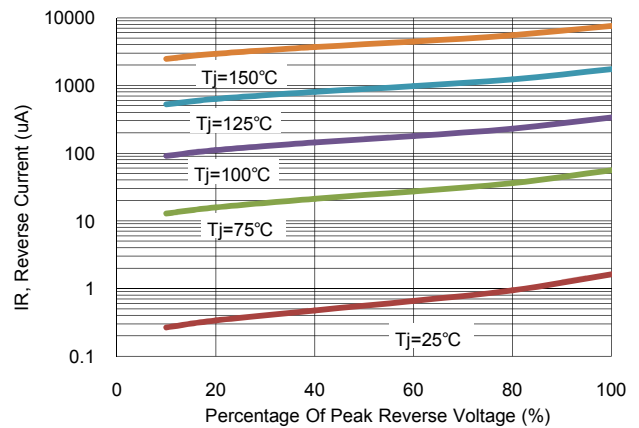


Figure 2: Peak Forward Surge Current


 Figure 3: Typical Forward Characteristics  
(MBR20100)

 Figure 4: Typical Reverse Characteristics  
(MBR20100)

**Ratings and Characteristics Curves** (  $T_A = 25^\circ\text{C}$  unless otherwise specified )

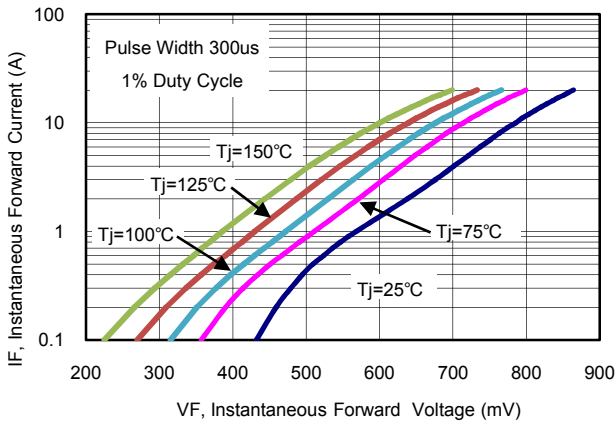


Figure 5: Typical Forward Characteristics (MBR20150)

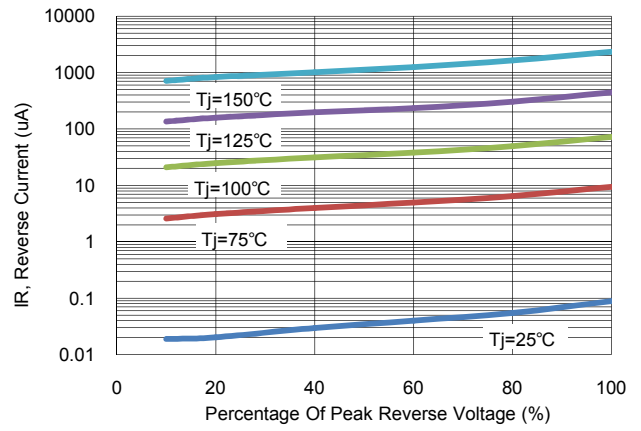


Figure 6: Typical Reverse Characteristics (MBR20150)

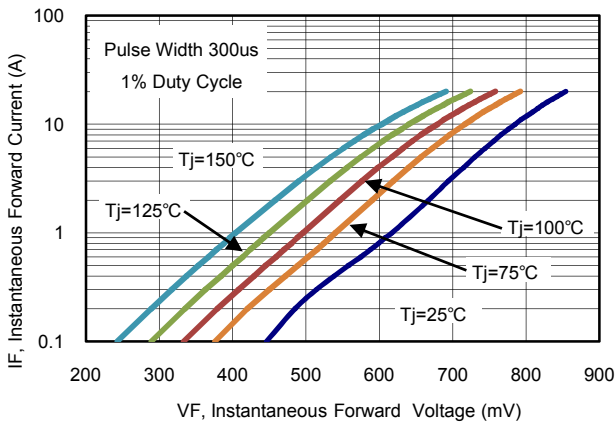


Figure 7: Typical Forward Characteristics (MBR20200)

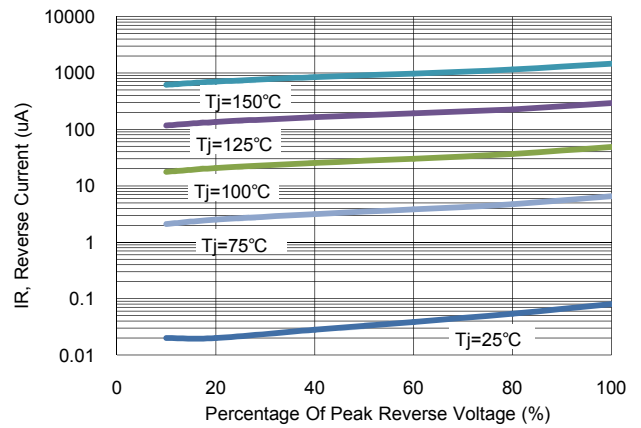
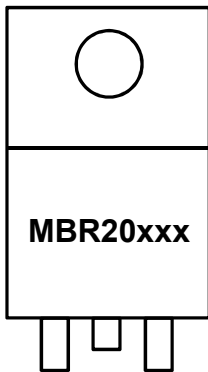


Figure 8: Typical Reverse Characteristics (MBR20200)

**Ordering information**

Part Number	Package	Delivery mode
MBR20100 THRU MBR20200	TO-220AC	50 pieces / Tube

**Marking Code Information**



MBR20xxx = Product Type Marking Code

**Disclaimer**

All product specifications and data are subject to change without notice.

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