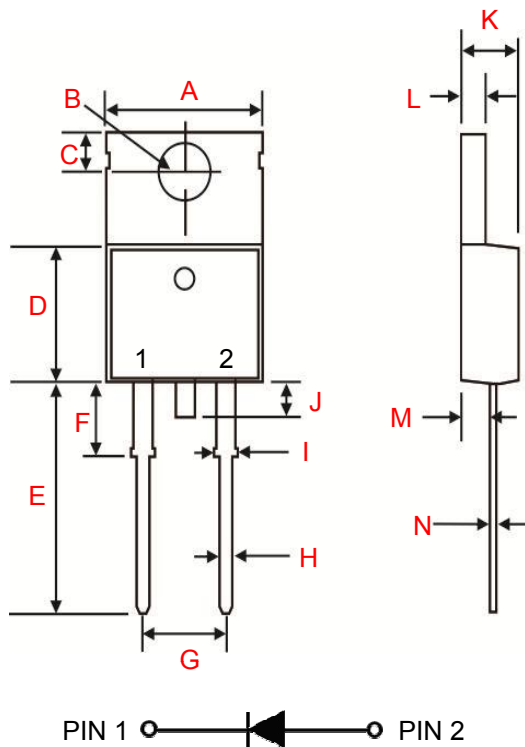


High Power Schottky Barrier Rectifier

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 2040	MBR 2060	Units
DC Blocking Voltage	V_{RM}	40	60	Volts
Working Peak Reverse Voltage	V_{RWM}	28	42	
Peak Repetitive Reverse Voltage	V_{RRM}	40	60	
Average Rectified Forward Current (Rated VR-20Khz Square Wave) - 50% duty cycle	$I_{F(AV)}$	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	0.7	0.8	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)

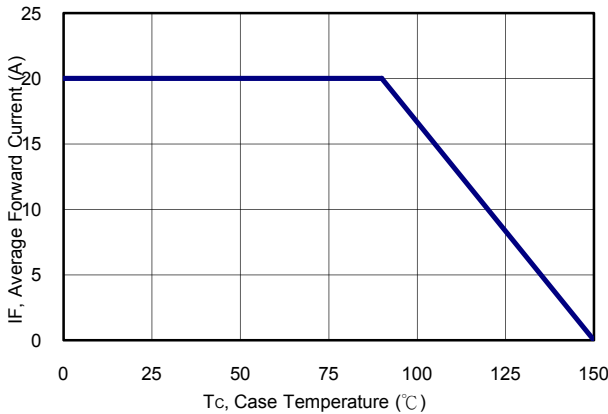


Figure 1: Current Derating Curves

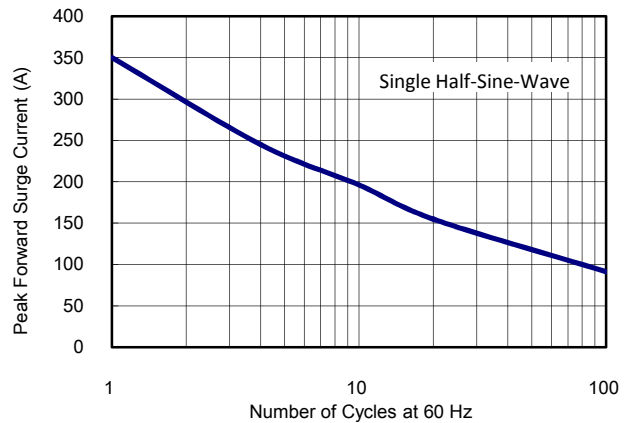


Figure 2: Peak Forward Surge Current

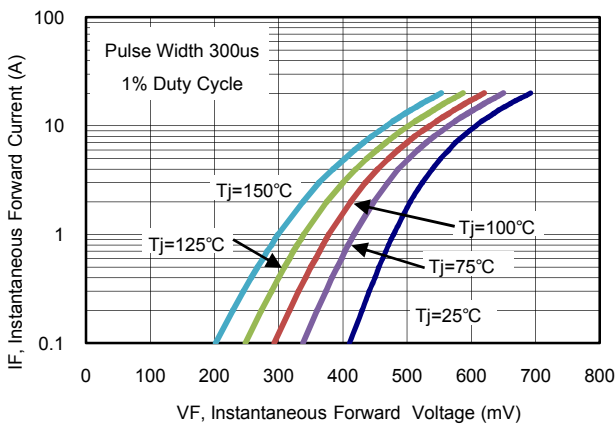


Figure 3: Typical Forward Characteristics (MBR2040)

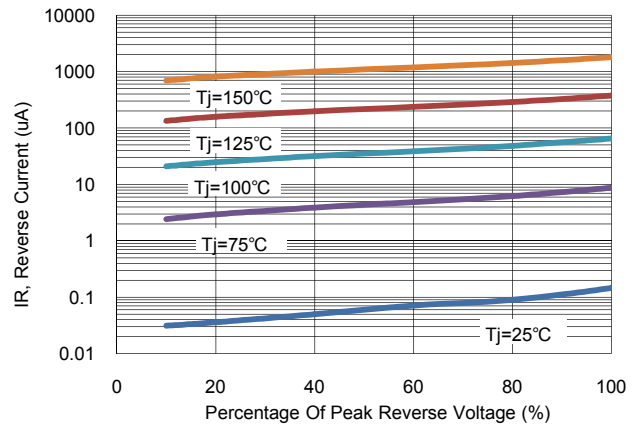


Figure 4: Typical Reverse Characteristics (MBR2040)

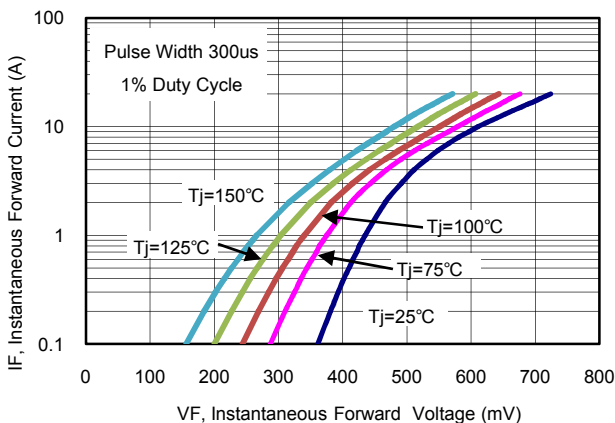


Figure 5: Typical Forward Characteristics (MBR2060)

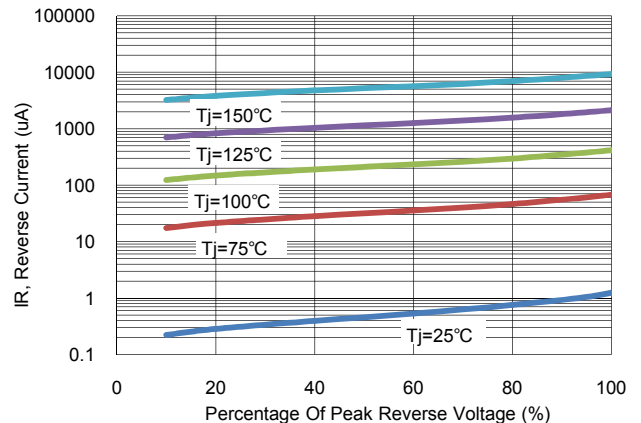
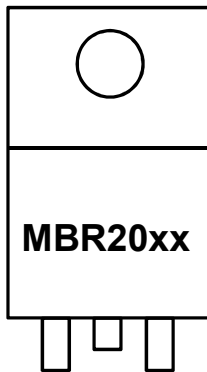


Figure 6: Typical Reverse Characteristics (MBR2060)

Ordering information

Part Number	Package	Delivery mode
MBR2040 / MBR2060	TO-220AC	50 pieces / Tube

Marking Code Information


MBR20xx = Product Type Marking Code

Disclaimer

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

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