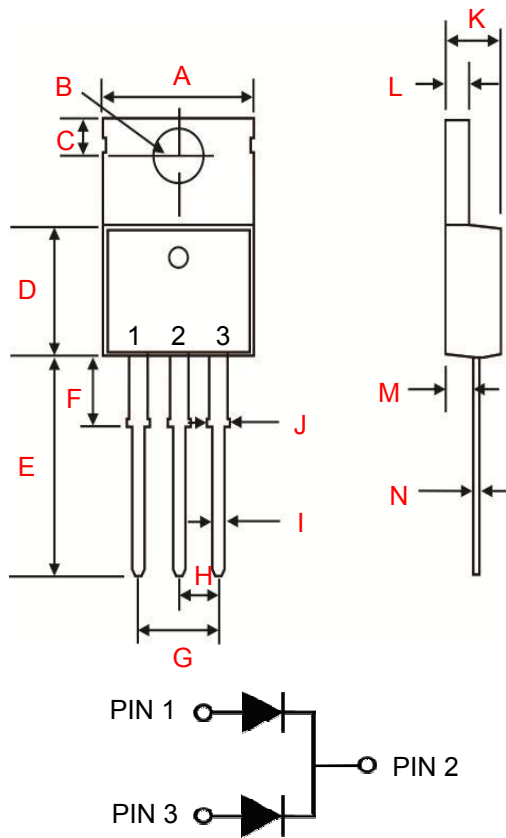


High Power Schottky Barrier Rectifier

Package Outline Dimensions (millimeters)



TO-220AB		
Dim.	Min.	Max.
A	10.01	10.31
B	3.79	3.89
C	2.64	2.95
D	8.76	9.02
E	13.70	14.10
F	4.04	4.19
G	4.98	5.18
H	2.54 BSC	
I	0.71	0.91
J	1.17	1.50
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 Low profile TO-220AB
- Plastic materials used carries underwriters laboratory flammability classification 94V-0
- Lead Temperature for Soldering Purposes : 265°C Max. for 10 Seconds
- Device Weight : Approximated 2.25 grams

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

Parameter	Symbol	MBR 10U100CT	MBR 10U150CT	MBR 10U200CT	Units
DC Blocking Voltage	V_{RM}	100	150	200	
Working Peak Reverse Voltage	V_{RWM}	70	105	140	Volts
Peak Repetitive Reverse Voltage	V_{RRM}	100	150	200	
Average Rectified Output Current (Total Device)	I_O	10			Amps
Non-Repetitive Peak Forward Surge Current (Per Leg) (Surge applied at rated load conditions half wave, single phase, 60Hz)	I_{FSM}	200			Amps
Instantaneous Forward Voltage (Per Leg) $I_F = 5A, T_A = 25^\circ\text{C}$	V_F	0.75	0.77	0.8	Volts
Instantaneous Reverse Current (Per Leg) $V_R = V_{RRM}, T_A = 25^\circ\text{C}$ $V_R = V_{RRM}, T_A = 125^\circ\text{C}$	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) (Per Leg)

Parameter	Symbol	Value	Units
Maximum Thermal Resistance Junction to Case	$R\theta_{JC}$	3.0	$^\circ\text{C} / \text{W}$
Operating & Storage Junction Temperature	T_J	150	$^\circ\text{C}$
	T_{STG}	- 65 to +150	

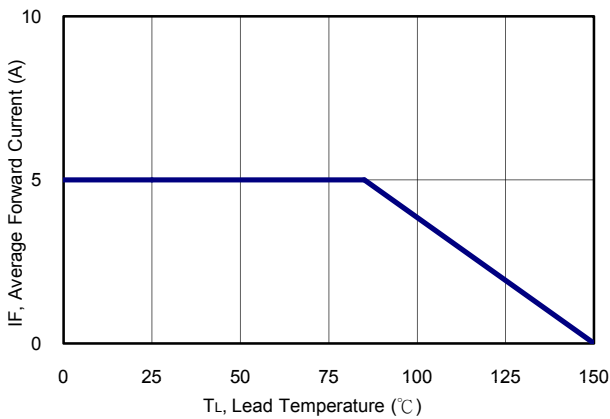
Ratings and Characteristics Curves ($T_A = 25^\circ\text{C}$ unless otherwise specified)


Figure 1: Current Derating Curves (Per Leg)

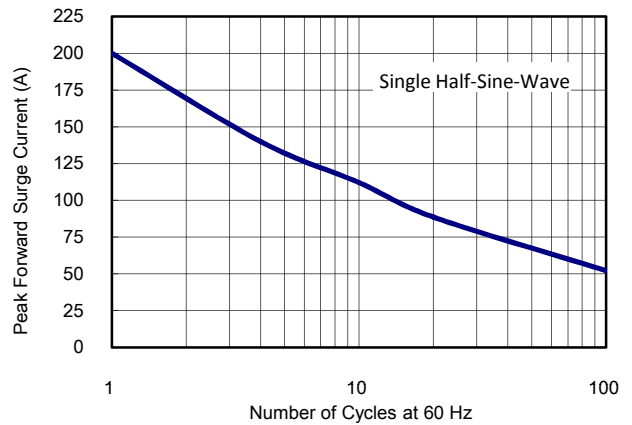


Figure 2: Peak Forward Surge Current (Per Leg)

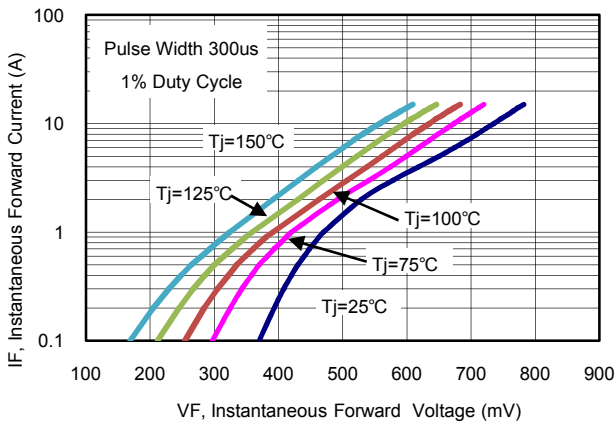


Figure 3: Typical Forward Characteristics (MBR10U100CT) (Per Leg)

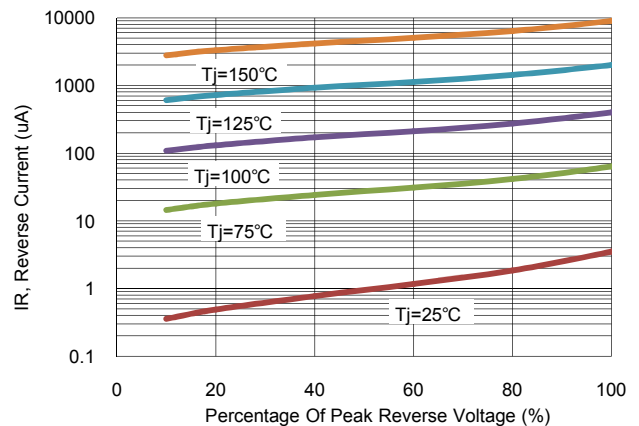


Figure 4: Typical Reverse Characteristics (MBR10U100CT) (Per Leg)

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

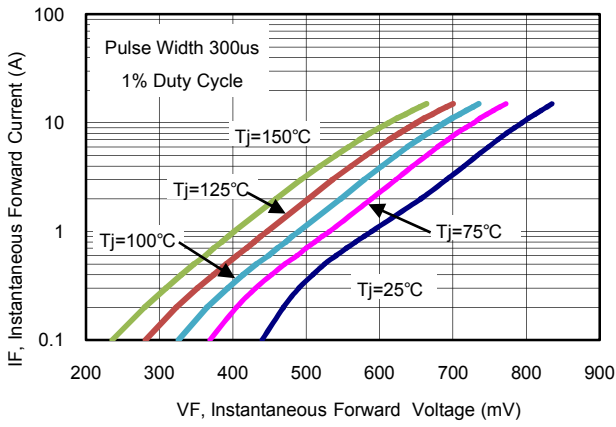


Figure 5: Typical Forward Characteristics (MBR10U150CT) (Per Leg)

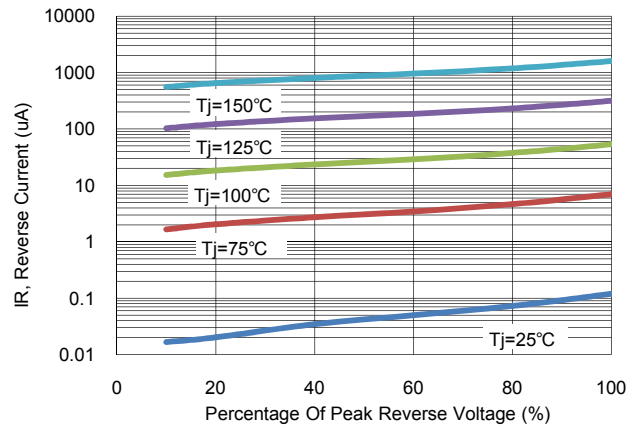


Figure 6: Typical Reverse Characteristics (MBR10U150CT) (Per Leg)

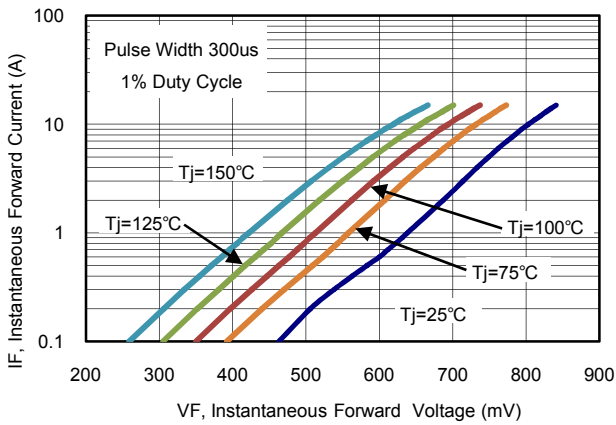


Figure 7: Typical Forward Characteristics (MBR10U200CT) (Per Leg)

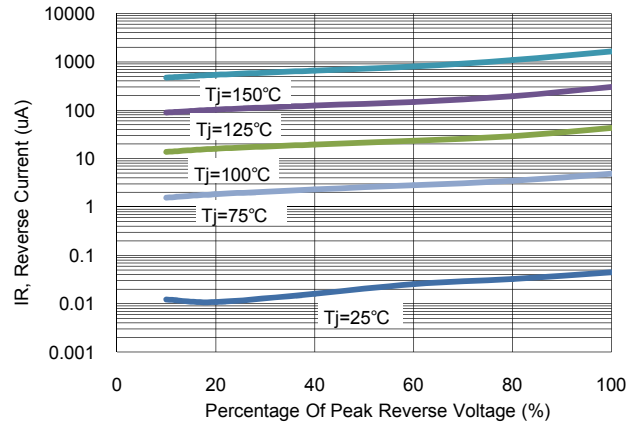
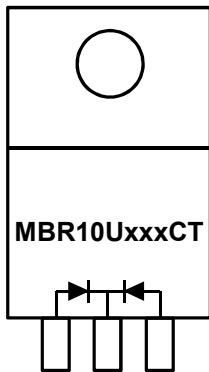


Figure 8: Typical Reverse Characteristics (MBR10U200CT) (Per Leg)

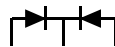
Ordering information

Part Number	Package	Delivery mode
MBR10U100CT THRU MBR10U200CT	TO-220AB	50 pieces / Tube

Marking Code Information



MBR10UxxxCT = Product Type Marking Code

 = polarity

Disclaimer

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

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