

## MBRF10100CT-HF Thru. MBRF10200CT-HF

Forward current: 10A

Reverse voltage: 100 to 200V

RoHS Device

Halogen Free

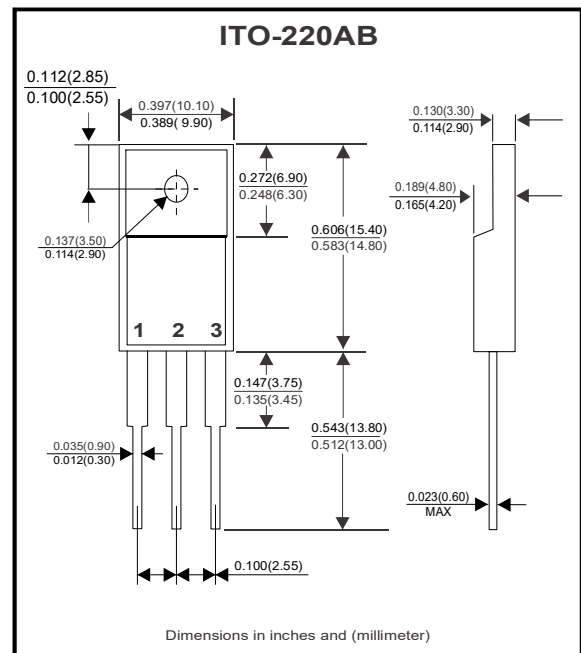


### Features

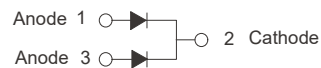
- High Current Capability
- Low Switching Noise
- High Surge Capability
- Low Power Loss & High Efficiency
- Guard Ring Protection
- Pd-free lead plating & Halogen-free part

### Mechanical data

- Molded Plastic Low profile ITO-220AB
- Plastic materials used carries underwriters laboratory flammability classification UL94V-0
- Lead Temperature for Soldering Purposes : 265°C Max. for 10 Seconds
- Device Weight : Approximated 2.25 grams



### Circuit diagram



### Maximum Ratings and Electrical Characteristics (at TA=25°C unless otherwise specified)

Parameter	Symbol	MBRF 10100CT	MBRF 10150CT	MBRF 10200CT	Units
DC Blocking Voltage	$V_{RM}$				
Working Peak Reverse Voltage	$V_{RWM}$	100	150	200	V
Peak Repetitive Reverse Voltage	$V_{RRM}$				
Average Rectified Output Current (Total Device)	$I_O$	10			A
Non-Repetitive Peak Forward Surge Current (Per Leg) (Surge applied at rated load conditions half wave, single phase, 60Hz)	$I_{FSM}$	125			A
Instantaneous Forward Voltage (Per Leg) $I_F = 5A, T_A = 25^\circ C$	$V_F$	0.85	0.87	0.9	V
Instantaneous Reverse Current (Per Leg) $V_R = V_{RRM}, T_A = 25^\circ C$ $V_R = V_{RRM}, T_A = 125^\circ C$	$I_R$	0.1 10			mA

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

Parameter	Symbol	Value	Units
Maximum Thermal Resistance (Junction to Case)	$R\theta_{JC}$	2.0	$^\circ\text{C} / \text{W}$
Operating & Storage Junction Temperature	$T_J$	175	$^\circ\text{C}$
	$T_{STG}$	- 65 to +175	

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

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

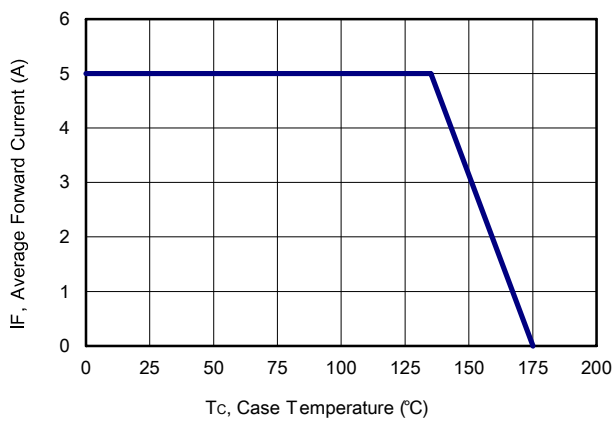


Figure 1: Current Derating Curves

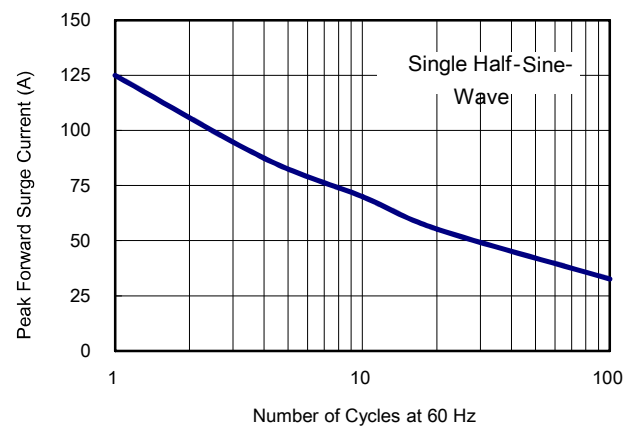


Figure 2: Peak Forward Surge Current (Per Leg)

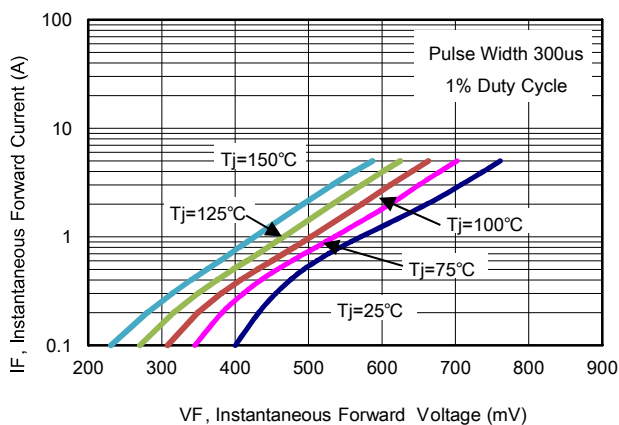


Figure 3: Typical Forward Characteristics (MBRF10100CT) (Per Leg)

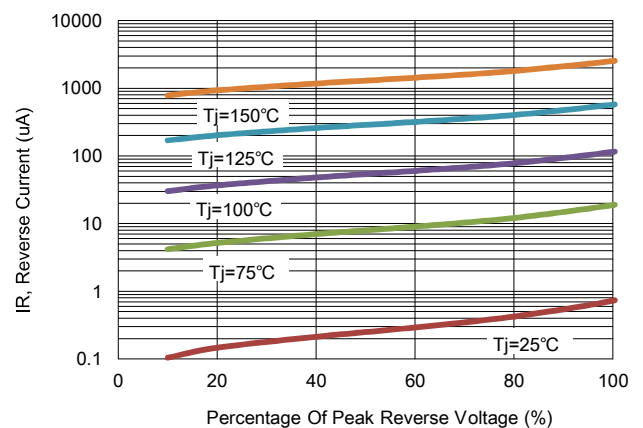


Figure 4: Typical Reverse Characteristics (MBRF10100CT) (Per Leg)

Company reserves the right to improve product design , functions and reliability without notice.

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

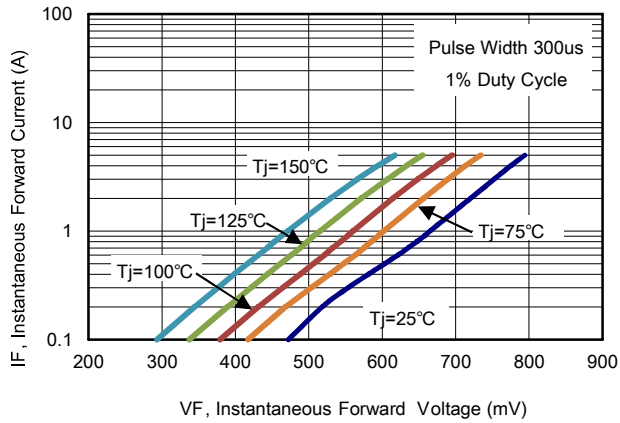


Figure 5: Typical Forward Characteristics (MBRF10150CT) (Per Leg)

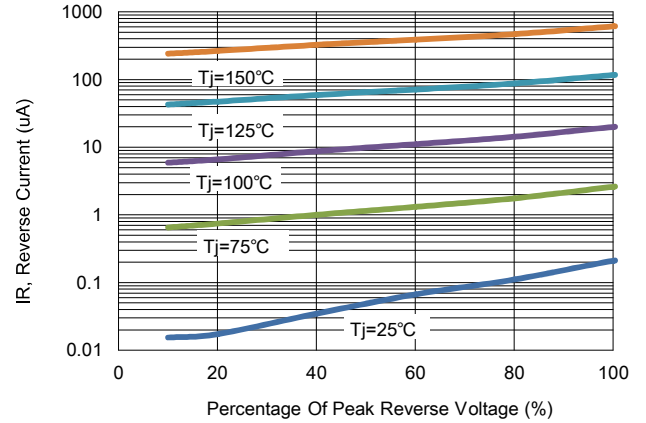


Figure 6: Typical Reverse Characteristics (MBRF10150CT) (Per Leg)

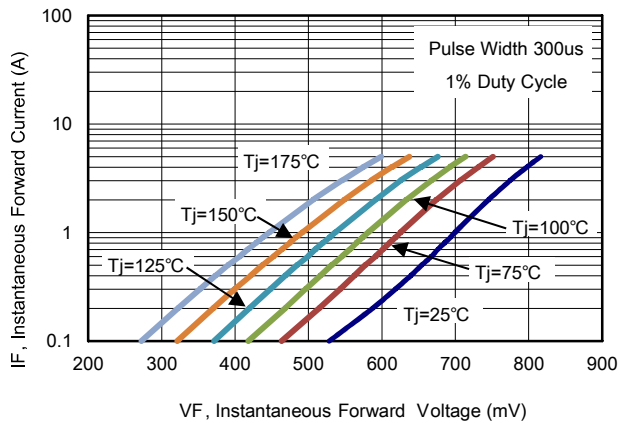


Figure 7: Typical Forward Characteristics (MBRF10200CT) (Per Leg)

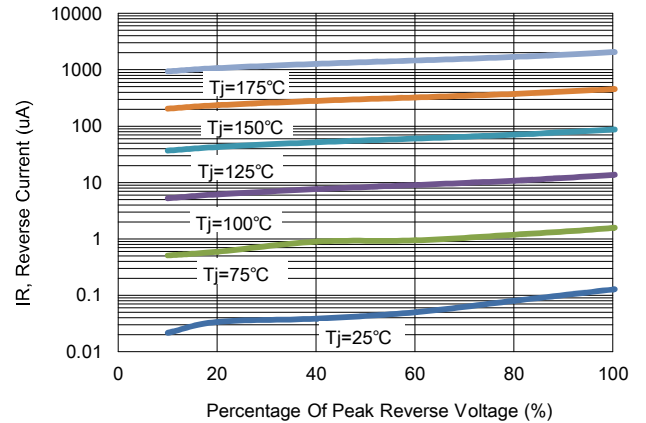
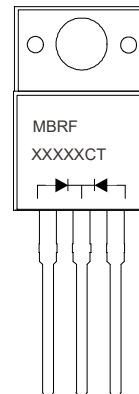


Figure 8: Typical Reverse Characteristics (MBRF10200CT) (Per Leg)

## Marking Code

Part Number	Marking code
MBRF10100CT-HF	MBRF10100CT
MBRF10150CT-HF	MBRF10150CT
MBRF10200CT-HF	MBRF10200CT



**XXXXX = Product type marking code**

## Standard Packaging

Case Type	TUBE PACK	
	TUBE ( pcs )	BOX ( pcs )
TO-220AB	50	2,000