

MBRF20100CT-HF Thru. MBRF20200CT-HF

Forward current: 20A

Reverse voltage: 100 to 200V

RoHS Device

Halogen Free

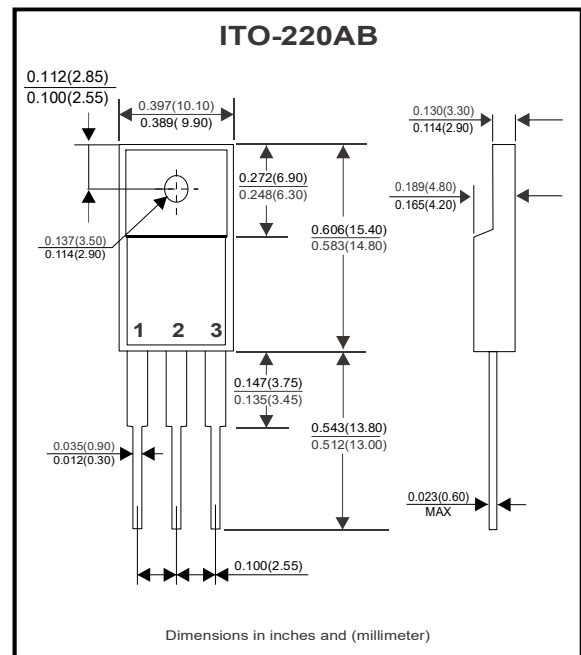


Features

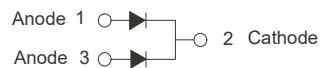
- High Current Capability
- Low Switching Noise
- High Surge Capability
- Low Power Loss & High Efficiency
- Guard Ring Protection
- Pd-free lead plating & Halogen-free part

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 20100CT	MBRF 20150CT	MBRF 20200CT	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	20			A
Non-Repetitive Peak Forward Surge Current (Per Leg) (Surge applied at rated load conditions half wave, single phase, 60Hz)	I_{FSM}	150			A
Instantaneous Forward Voltage (Per Leg) $I_F = 10A, T_A = 25^\circ C$	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)

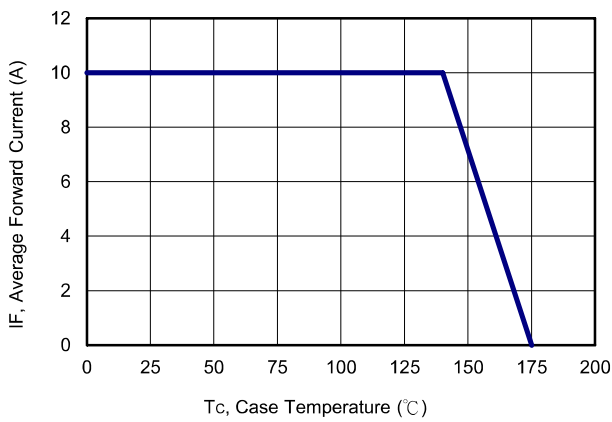


Figure 1: Current Derating Curves

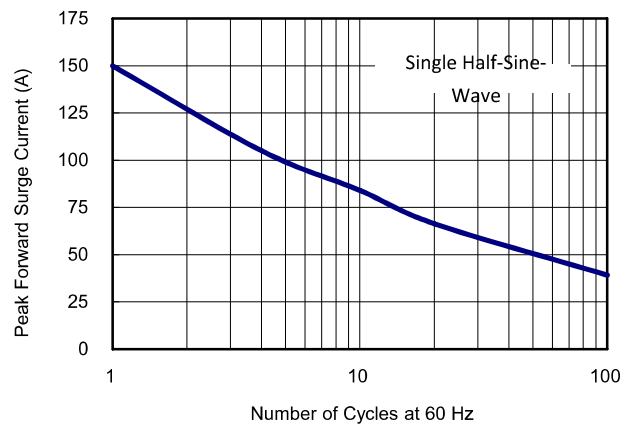


Figure 2: Peak Forward Surge Current (Per Leg)

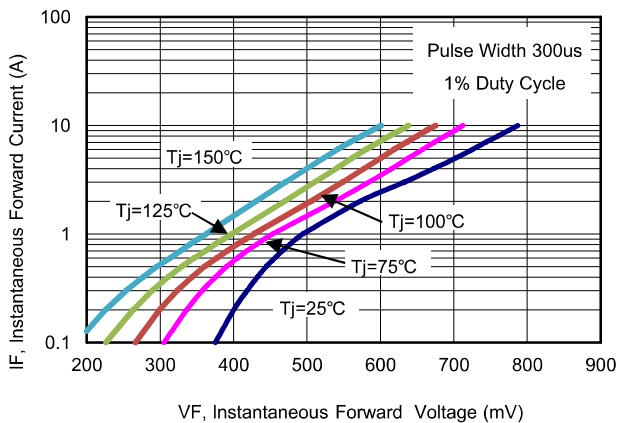


Figure 3: Typical Forward Characteristics (MBRF20100CT) (Per Leg)

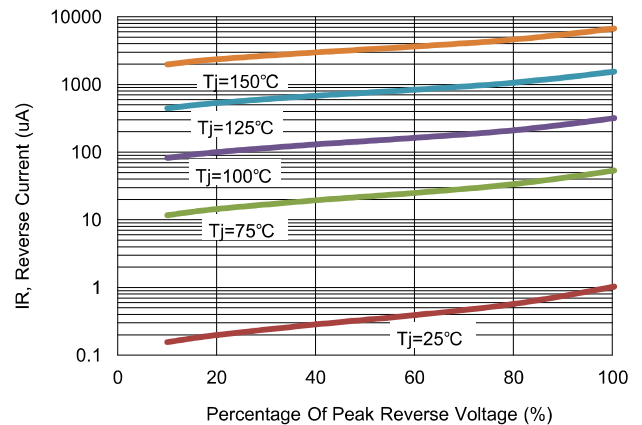


Figure 4: Typical Reverse Characteristics (MBRF20100CT) (Per Leg)

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

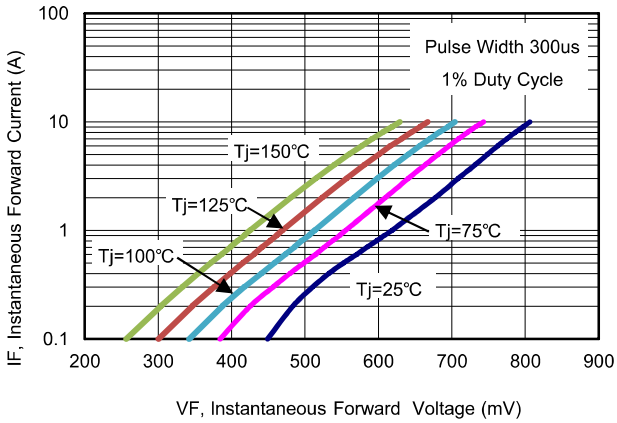


Figure 5: Typical Forward Characteristics (MBRF20150CT) (Per Leg)

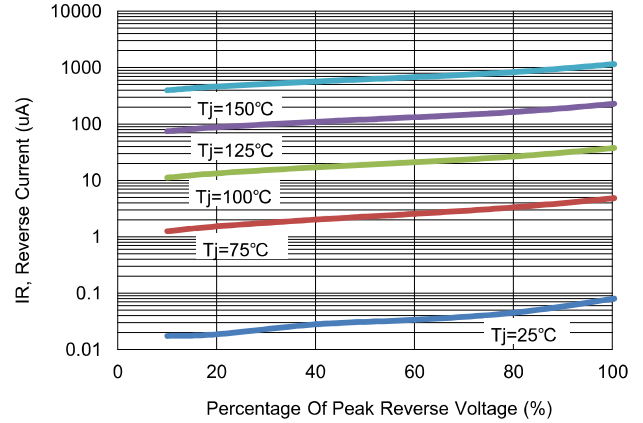


Figure 6: Typical Reverse Characteristics (MBRF20150CT) (Per Leg)

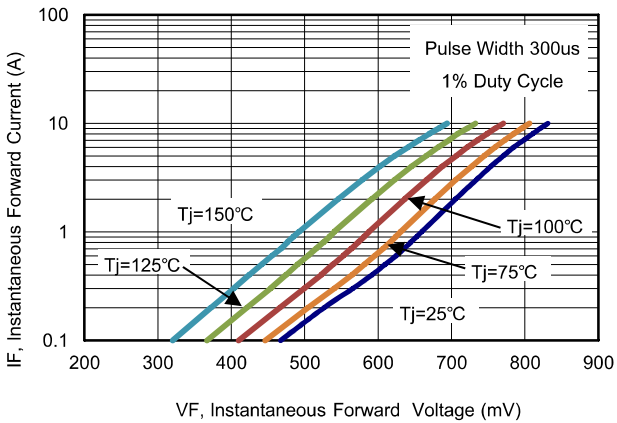


Figure 7: Typical Forward Characteristics (MBRF20150CT) (Per Leg)

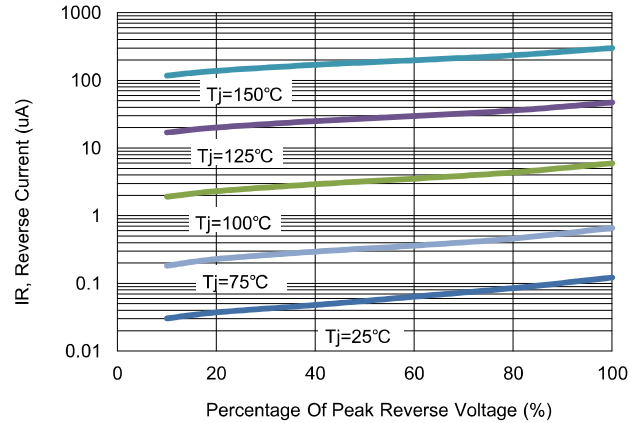
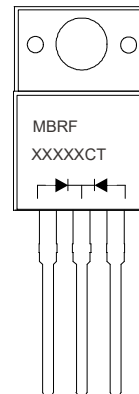


Figure 8: Typical Reverse Characteristics (MBRF20150CT) (Per Leg)

Marking Code

Part Number	Marking code
MBRF20100CT-HF	MBRF20100CT
MBRF20150CT-HF	MBRF20150CT
MBRF20200CT-HF	MBRF20200CT



XXXXX = Product type marking code

Standard Packaging

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