

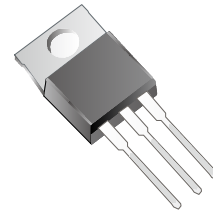
MBR1040CT-HF Thru. MBR1060CT-HF

Forward current: 10A

Reverse voltage: 40 to 60V

RoHS Device

Halogen Free

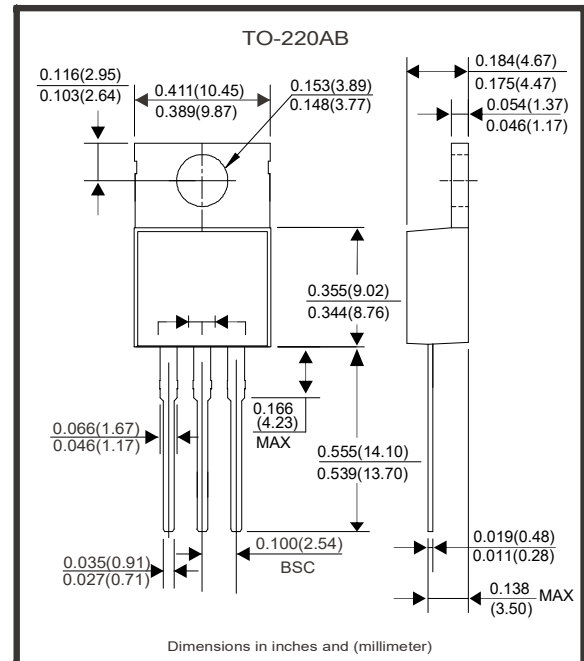


Features

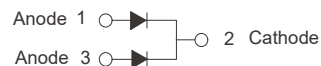
- High Current Capability
- Low Switching Noise
- High Surge Capability
- Low Power Loss & High Efficiency
- Guard Ring Protection
- Pd-free lead plating & Halogen-free part

Mechanical data

- Molded Plastic Low profile TO-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 $T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	MBR 1040CT	MBR 1060CT	Units
DC Blocking Voltage	V_{RM}			
Working Peak Reverse Voltage	V_{RWM}	40	60	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) $I_F = 5A, T_A = 25^\circ\text{C}$ $I_F = 5A, T_A = 125^\circ\text{C}$	V_F	0.65 0.55	0.75 0.65	V
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

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)

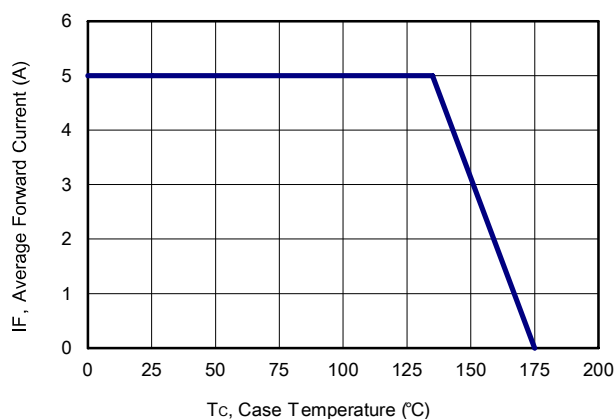


Figure 1: Current Derating Curves

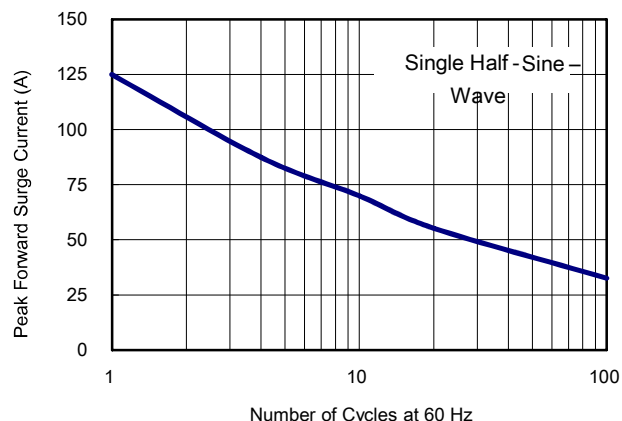


Figure 2: Peak Forward Surge Current (Per Leg)

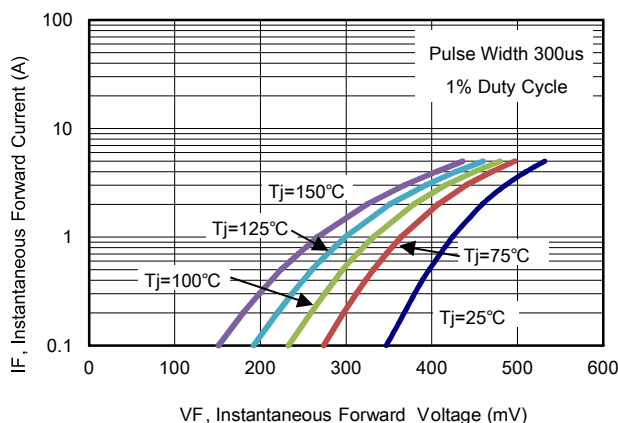


Figure 3: Typical Forward Characteristics (MBR1040CT) (Per Leg)

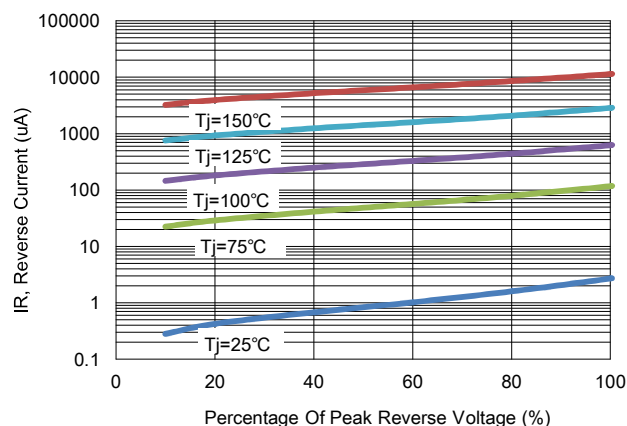


Figure 4: Typical Reverse Characteristics (MBR1040CT) (Per Leg)

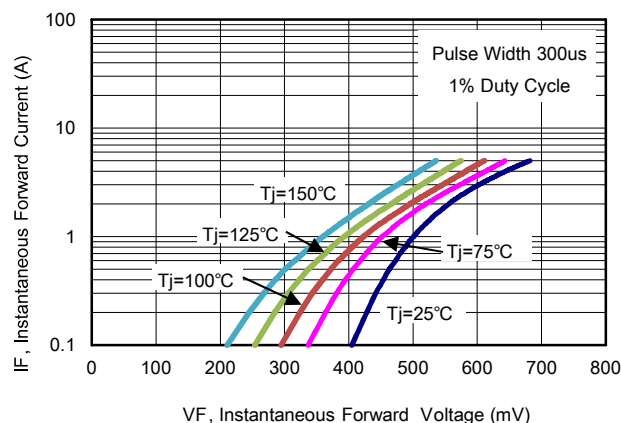


Figure 5: Typical Forward Characteristics (MBR1060CT) (Per Leg)

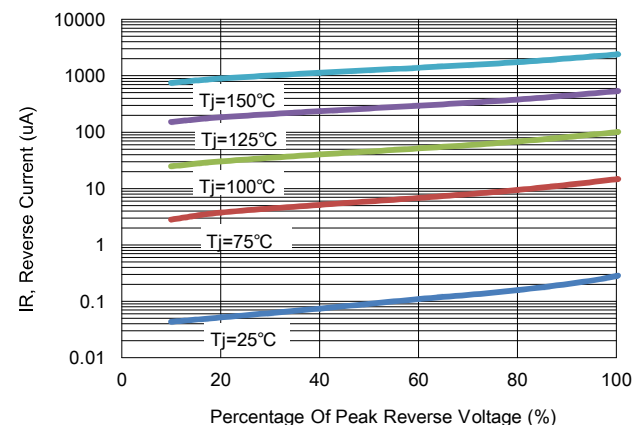


Figure 6: Typical Reverse Characteristics (MBR1060CT) (Per Leg)

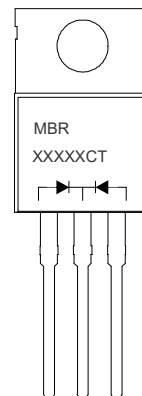
Company reserves the right to improve product design , functions and reliability without notice.

REV: A

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Marking Code

Part Number	Marking code
MBR1040CT-HF	MBR1040CT
MBR1060CT-HF	MBR1060CT



XXXXXX = Product type marking code

Standard Packaging

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