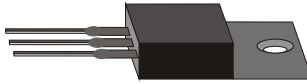
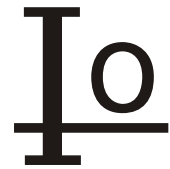


# MBR10100LCT

LOW VF TRENCH SCHOTTKY BARRIER RECTIFIER



## Features

- Schottky Barrier Diodes
- 10 A Total (5A Per Diode Leg)
- Guard Ring for Stress Protection
- Low Forward Voltage
- 175°C Operating Junction Temperature
- Epoxy Meets UL 94 V 0 @ 0.125 in
- Low Power Loss/High Efficiency
- High Surge Capacity
- Low Stored Charge Majority Carrier Conduction
- Pb Free Packages are Available\*

## Mechanical Characteristics:

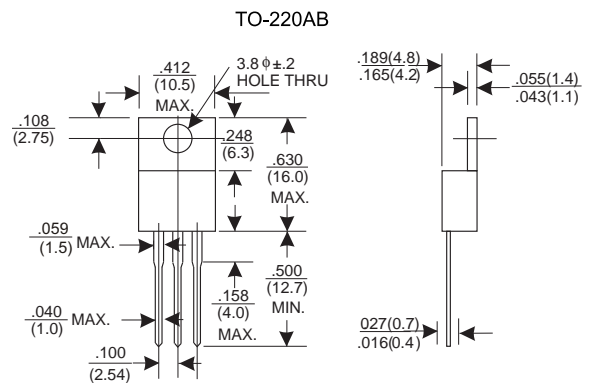
- Case: Epoxy, Molded
- Weight: 2.26 grams (approximately)
- Finish: All External Surfaces Corrosion Resistant and Terminal Leads are Readily Solderable
- Lead Temperature for Soldering Purposes:  
260°C Max. for 10 Seconds

## VOLTAGE RANGE

100 Volts

## CURRENT

10.0 Ampere



Dimensions in inches and (millimeters)

## RATINGS (Per Diode Leg)

Rating	Symbol	MBR10100LCT	Unit
Peak Repetitive Reverse Voltage	$V_{RRM}$	100	V
Average Rectified Forward Current (Rated $V_R$ ) $T_C = 133^\circ\text{C}$	$I_{F(AV)}$	5	A
Peak Repetitive Forward Current (Rated $V_R$ , Square Wave, 20 kHz) $T_C = 133^\circ\text{C}$	$I_{FRM}$	10	A
Typical Instantaneous Forward Voltage ( $i_F = 5$ Amps, $T_C = 25^\circ\text{C}$ )	$V_F$	0.65	V
Nonrepetitive Peak Surge Current (Surge applied at rates load conditions halfwave, single phase, 60Hz)	$I_{FSM}$	150	A
Peak Repetitive Reverse Surge Current (2.0 $\mu\text{s}$ , 1.0 kHz)	$I_{RRM}$	5	A
Operating Junction Temperature	$T_J$	- 65 to +175	$^\circ\text{C}$
Voltage Rate of Change (Rated $V_R$ )	$dv/dt$	10,000	V/ $\mu\text{s}$
Maximum Instantaneous Reverse Current (Rated dc Voltage, $T_C = 125^\circ\text{C}$ )	$I_R$	6.0	mA
(Rated dc Voltage, $T_C = 25^\circ\text{C}$ )		0.05	

# MBR10100LCT

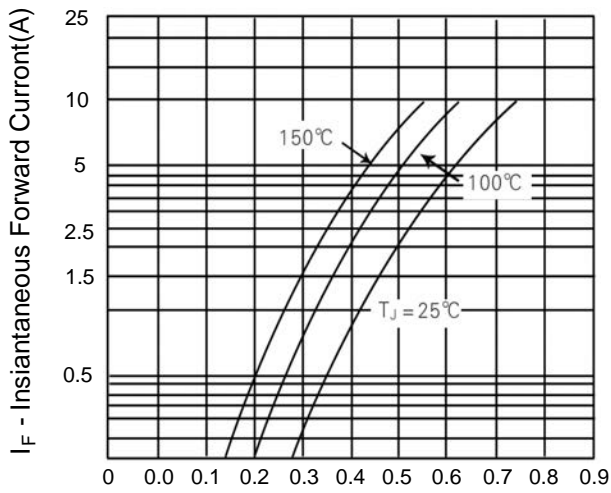


Figure 1. Typical Forward Voltage Per Diode

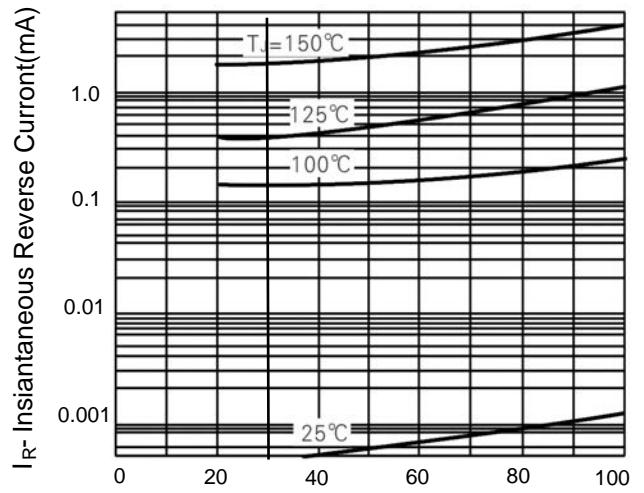


Figure 2. Typical Reverse Current Per Diode

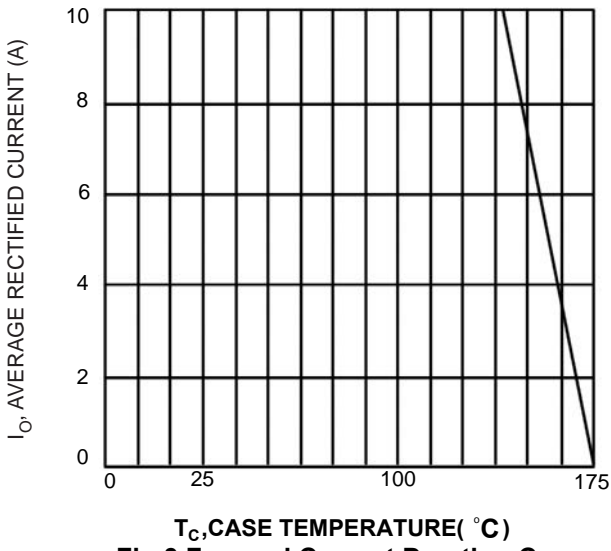


Fig.3 Forward Current Derating Curve

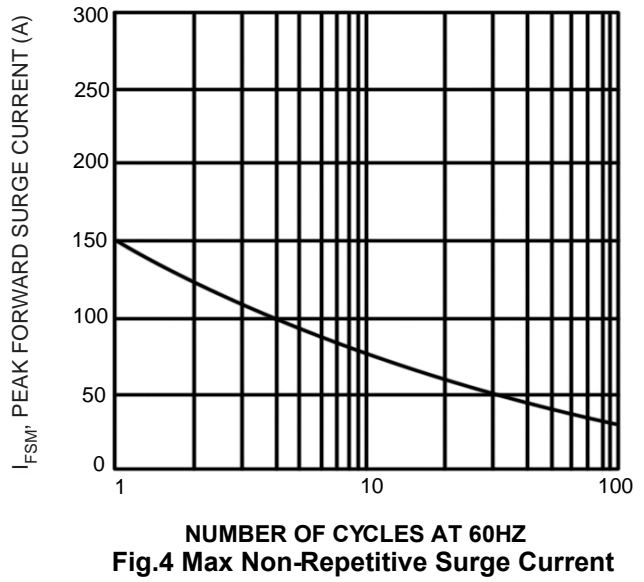


Fig.4 Max Non-Repetitive Surge Current