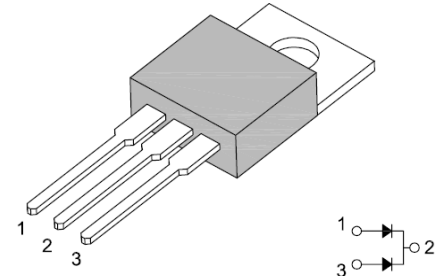


10A Schottky Barrier Rectifiers

Features

- Guarding for over voltage protection
- Lower power losses, high efficiency
- Low forward voltage drop
- High forward surge capability
- High frequency operation
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- RoHS compliance



TO-220



Mechanical Data

Case:	JEDEC TO-220, molded plastic body
Epoxy:	Plastic package has UL flammability classification 94V-0
Terminals:	Plated leads, solderable per MIL-STD-750, Method 2026
Polarity	As marked
Mounting Position:	Any
Mounting Torque:	10 in-lbs maximum
Weight:	0.08 ounce, 2.24 grams

Maximum Ratings ($T_{Ambient}=25^{\circ}C$ unless noted otherwise)

Symbol	Description	MBR1090CT	MBR10100CT	Unit	Conditions
V_{RRM}	Maximum Repetitive Peak Reverse Voltage	90	100	V	
V_{RWM}	Working Peak Reverse Voltage	90	100	V	
V_{DC}	Maximum DC Blocking Voltage	90	100	V	
I_{F(AV)}	Maximum Average Forward Rectified Current	10		A	$T_C=105^{\circ}C$
I_{FSM}	Peak Forward Surge Current	120		A	8.3ms single half sine-wave superimposed on rated load (JEDEC Method)
T_J, T_{STG}	Operating Junction and Storage Temperature Range	-65 to +150		$^{\circ}C$	

10A Schottky Barrier Rectifiers

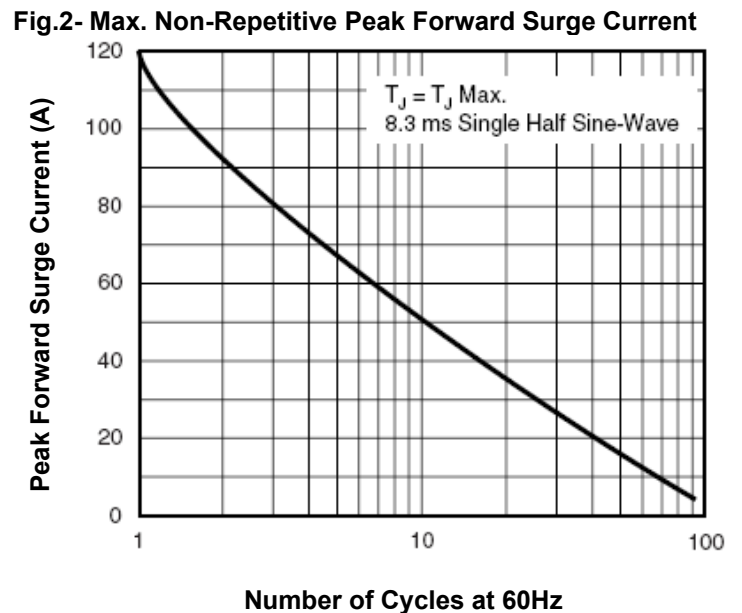
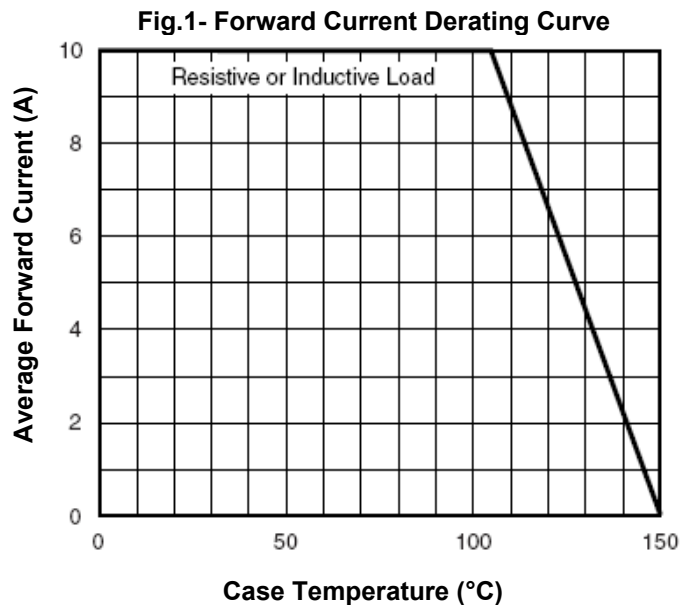
MBR1090CT/MBR10100CT

Electrical Characteristics ($T_{Ambient}=25^{\circ}\text{C}$ unless noted otherwise)

Symbol	Description	MBR1090CT	MBR10100CT	Unit	Conditions
V_F	Maximum Instantaneous Forward Voltage per Leg (Note)	0.85		V	$I_F=5.0\text{A}$, $T_C=25^{\circ}\text{C}$
		0.75			$I_F=5.0\text{A}$, $T_C=125^{\circ}\text{C}$
I_R	Maximum Instantaneous Reverse Current at rated DC Blocking Voltage (Note)	100		μA	$T_J=25^{\circ}\text{C}$
		6.0		mA	$T_J=100^{\circ}\text{C}$
$R_{\theta-JC}$	Typical Thermal Resistance from Junction to Case per Leg	4.4		$^{\circ}\text{C/W}$	

Note: Pulse test: 300 μs pulse width, 1% duty cycle.

Typical Characteristics Curves



10A Schottky Barrier Rectifiers

MBR1090CT/MBR10100CT

Fig.3- Typical Instantaneous Forward Characteristics

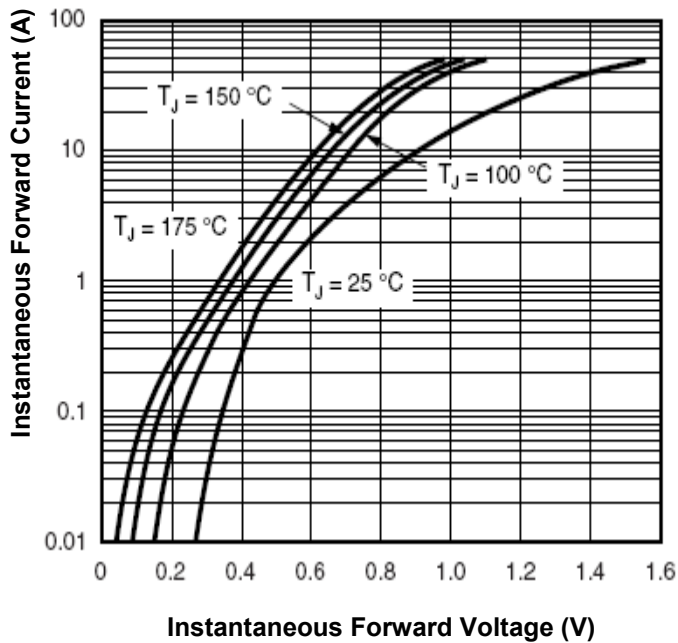


Fig.4- Typical Reverse Characteristics

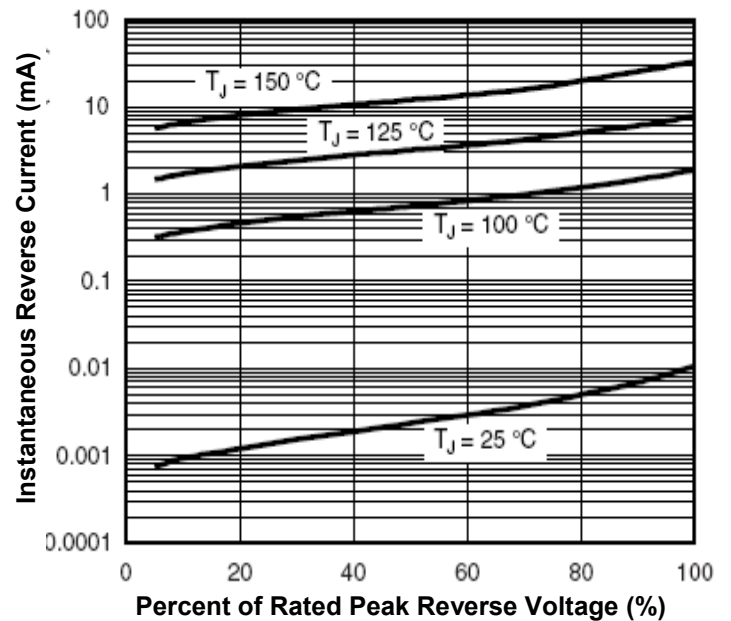
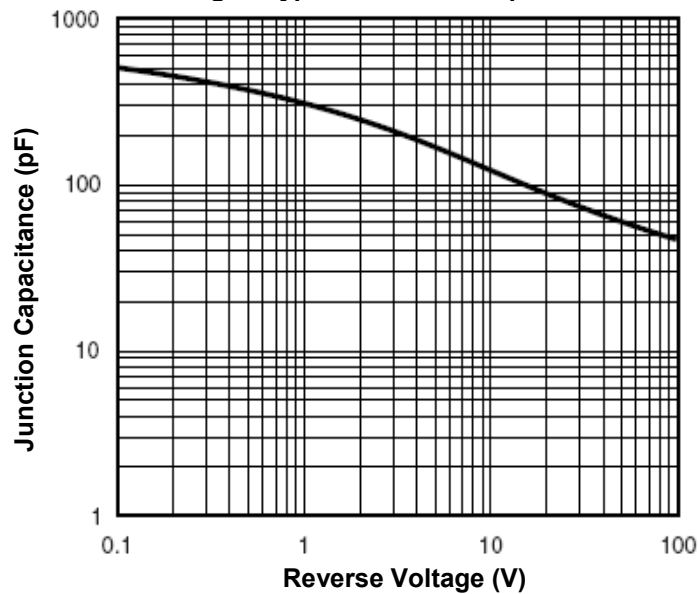


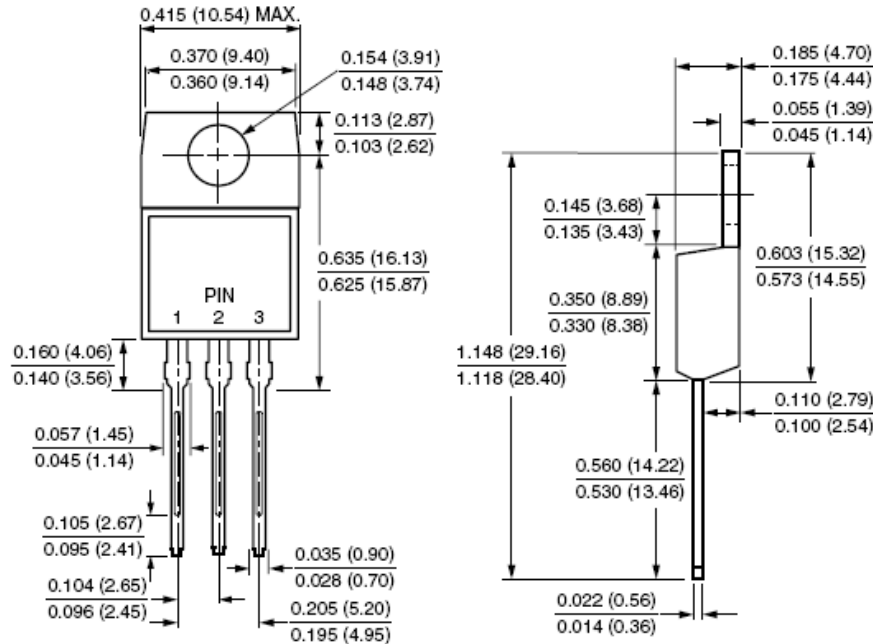
Fig.5- Typical Junction Capacitance



10A Schottky Barrier Rectifiers

MBR1090CT/MBR10100CT

Dimensions in inch (mm)



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TO-220

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