

# Schottky Barrier Rectifier

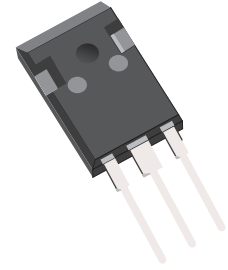


## MBR6050PT-G Thru. MBR60100PT-G

Reverse Voltage: 50 to 100V

Forward Current: 60.0A

RoHS Device

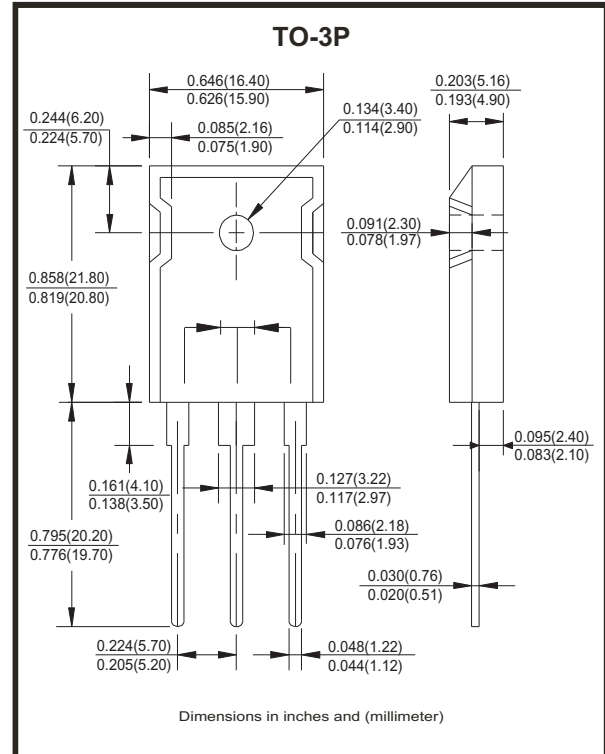


### Features

- Metal of silicon rectifier, majority carrier conduction.
- Low power loss, high efficiency.
- High current capability, low forward voltage drop.
- Guardring for overvoltage protection.
- High surge capacity.
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications.

### Mechanical Data

- Epoxy: UL 94-V0 rate flame retardant.
- Case: JEDEC TO-3P/TO-247AD, molded plastic body
- Polarity: As marked on the body.
- Mounting position: Any
- Weight: 5.6 grams



### Maximum Ratings And Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.  
 Single phase, half wave, 60Hz, resistive or inductive load.  
 For capacitive load, derate current by 20%

Parameter	Symbol	MBR6050 PT-G	MBR6060 PT-G	MBR60100 PT-G	Unit
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	60	80	V
Maximum RMS Voltage	$V_{RMS}$	35	42	56	V
Maximum DC Blocking Voltage	$V_{DC}$	50	60	80	V
Maximum Average Forward Rectified Current @ $T_c=125^\circ\text{C}$	$I_{(AV)}$	60			A
Peak Forward Surge Current, 8.3ms Single Half Sine-Wave Super Imposed On Rated Load (JEDEC Method)	$I_{FSM}$	500			A
Maximum Instantaneous Forward Voltage at (Note 1)	$I_F=30\text{A}, T_c=25^\circ\text{C}$	$V_F$	0.72		V
	$I_F=30\text{A}, T_c=125^\circ\text{C}$	$V_F$	0.62		V
Maximum DC Reverse Current At Rate DC Blocking Voltage	@ $T_j=25^\circ\text{C}$	$I_R$	1.0		mA
	@ $T_j=100^\circ\text{C}$	$I_R$	100		mA
Typical Thermal Resistance (Note 2)	$R_{\theta JC}$	1.2			$^\circ\text{C}/\text{W}$
Operating Temperature Range	$T_j$	-65 to +150			$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-65 to +175			$^\circ\text{C}$

Notes:

1. Pulse Test: 300us pulse width, 1% duty cycle.
2. Thermal resistance from junction to case per leg.

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

REV: A

## Rating and Characteristics Curves (MBR6050PT-G Thru. MBR60100PT-G)

Fig.1- Forward Current Derating Curve

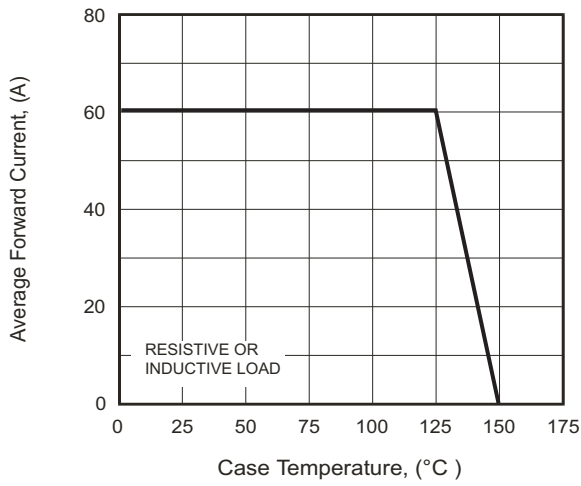


Fig.2- Typical Forward Characteristics

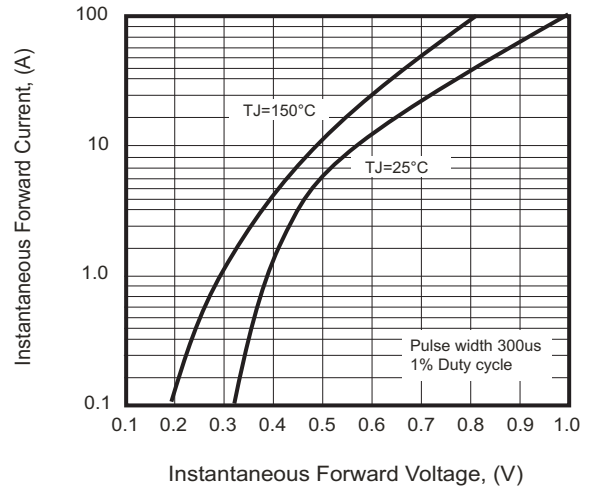


Fig.3- Maximum Non-Repetitive Surge Current

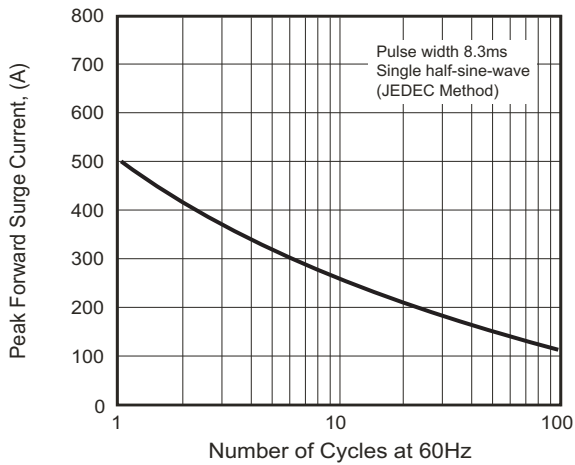
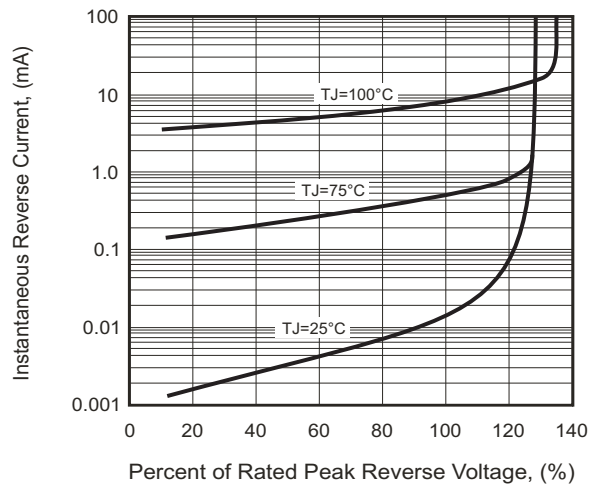
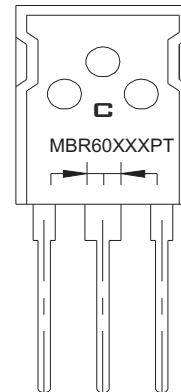


Fig.4- Typical Revers Characteristics



## Marking Code

Part Number	Marking code
MBR6050PT-G	MBR6050PT
MBR6060PT-G	MBR6060PT
MBR60100PT-G	MBR60100PT



**XX / XXX = Product type marking code**  
**□ = Comchip Logo**

## Standard Packaging

Case Type	BULK PACK	
	BOX ( pcs )	CARTON ( pcs )
TO-3P	500	2,000