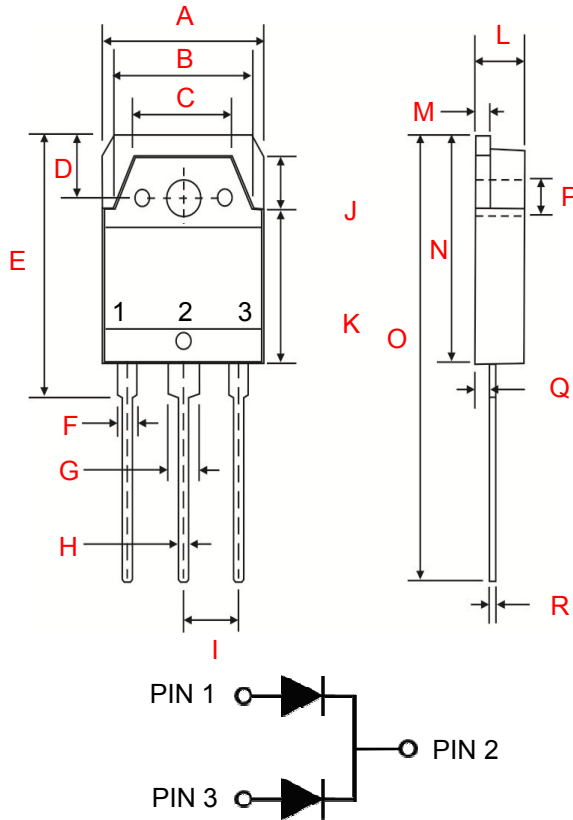


High Power Schottky Barrier Rectifier

Package Outline Dimensions (millimeters)



TO-3P		
Dim.	Min.	Max.
A	15.45	15.85
B	13.40	13.80
C	9.40	9.80
D	5.00 REF	
E	23.20	23.60
F	1.80	2.20
G	2.80	3.20
H	0.80	1.20
I	5.45 TYP	
J	5.15	5.50
K	13.70	14.10
L	4.60	5.00
M	1.45	1.65
N	20.30	20.60
O	39.90	40.30
P	3.3 REF	
Q	1.20	1.60
R	0.50	0.70
All Dimensions in millimeter		

Features

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

Mechanical

- Molded Plastic Low profile TO-3P
- Plastic materials used carries underwriters laboratory flammability classification 94V-0
- Lead Temperature for Soldering Purposes : 265°C Max. for 10 Seconds
- Device Weight : Approximated 5.6 grams

Maximum Ratings & Electrical Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	MBR 40100PT	MBR 40150PT	MBR 40200PT	Units
DC Blocking Voltage	V_{RM}	100	150	200	Volts
Working Peak Reverse Voltage	V_{RWM}	70	105	140	
Peak Repetitive Reverse Voltage	V_{RRM}	100	150	200	
Average Rectified Output Current (Total Device)	I_O	40			Amps
Non-Repetitive Peak Forward Surge Current (Per Leg) (Surge applied at rated load conditions half wave, single phase, 60Hz)	I_{FSM}	350			Amps
Instantaneous Forward Voltage (Per Leg) $I_F = 20A, T_A = 25^\circ\text{C}$	V_F	0.85	0.87	0.9	Volts
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			mA
		10			

NOTE : 1. Thermal resistance from junction to case per leg, with heatsink(1.35" x 0.95" x 0.18") Al-plate.

Thermal Characteristics ($T_A = 25^\circ\text{C}$ unless otherwise specified) (Per Leg)

Parameter	Symbol	Value	Units
Maximum Thermal Resistance Junction to Case	$R\theta_{JC}$	1.0	$^\circ\text{C} / \text{W}$
Operating & Storage Junction Temperature	T_J	150	$^\circ\text{C}$
	T_{STG}	- 65 to +150	

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

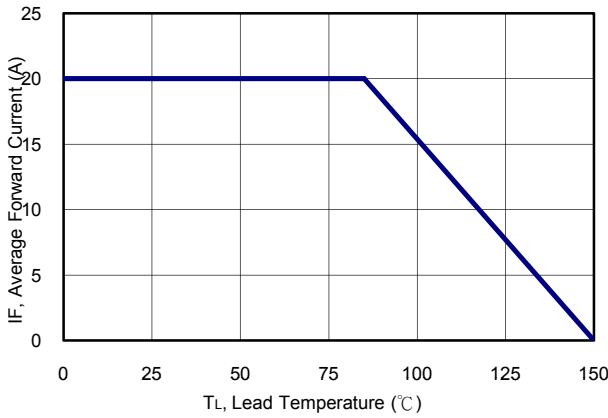


Figure 1: Current Derating Curves (Per Leg)

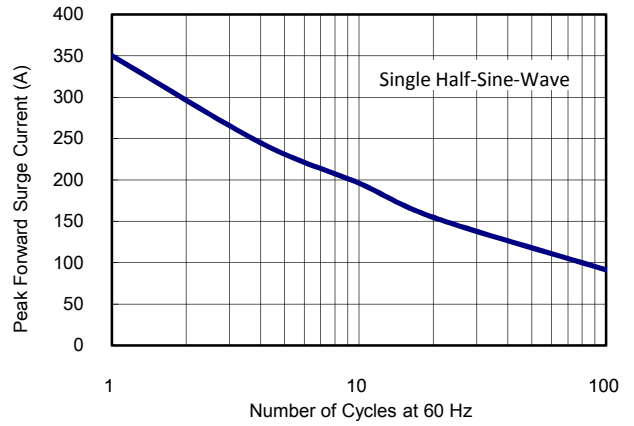


Figure 2: Peak Forward Surge Current (Per Leg)

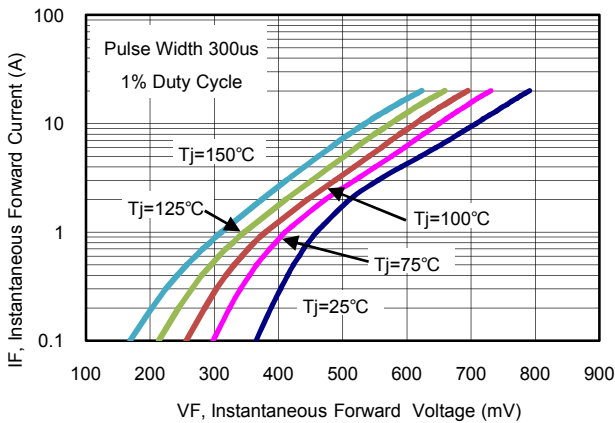


Figure 3: Typical Forward Characteristics (MBR40100PT) (Per Leg)

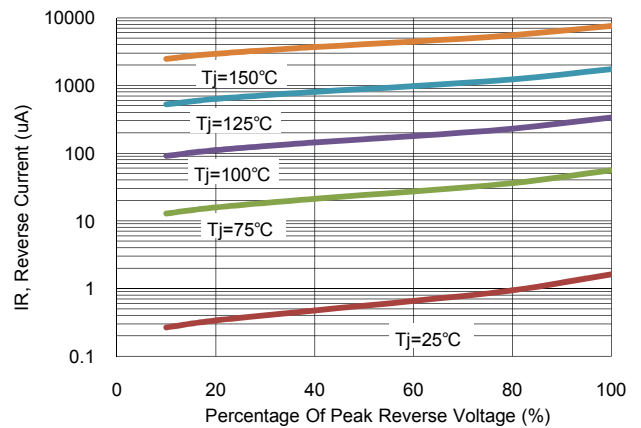


Figure 4: Typical Reverse Characteristics (MBR40100PT) (Per Leg)

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

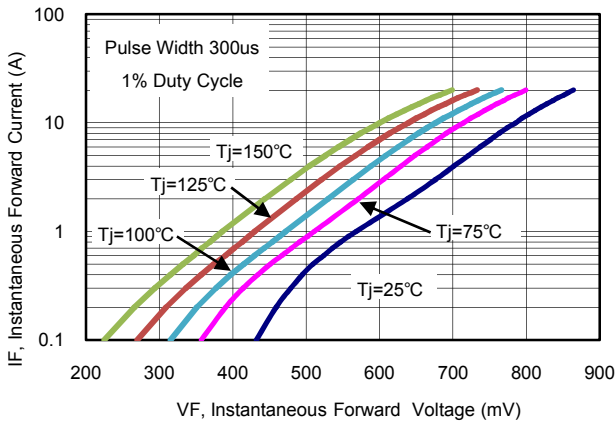


Figure 5: Typical Forward Characteristics (MBR40150PT) (Per Leg)

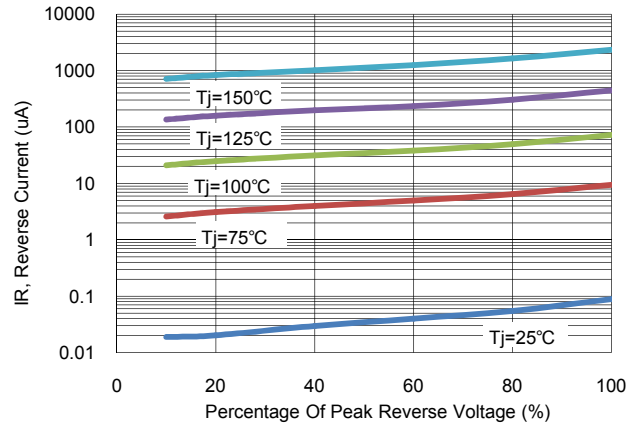


Figure 6: Typical Reverse Characteristics (MBR40150PT) (Per Leg)

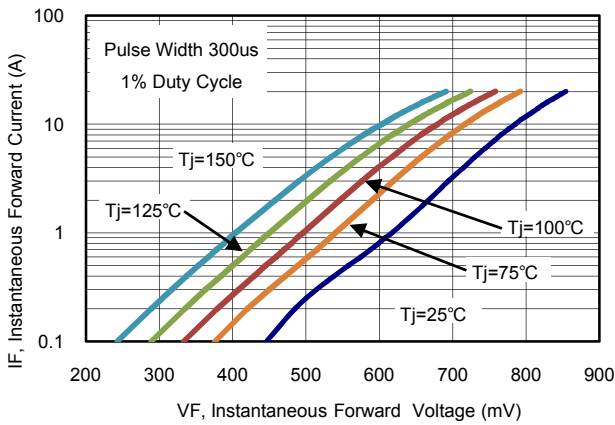


Figure 7: Typical Forward Characteristics (MBR40200PT) (Per Leg)

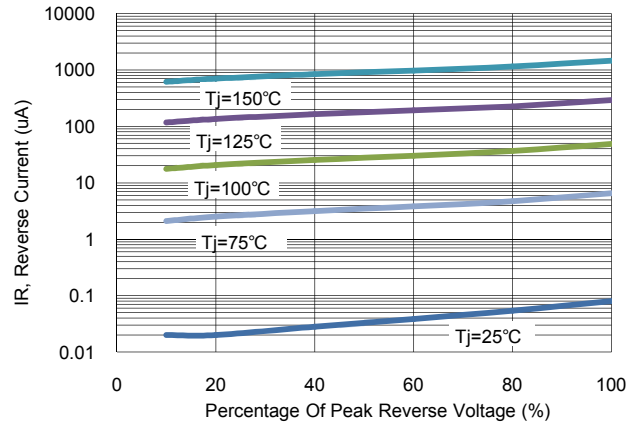
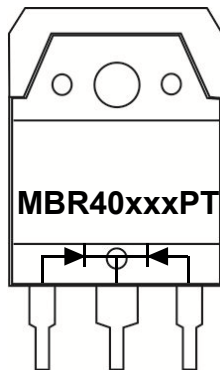


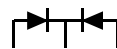
Figure 8: Typical Reverse Characteristics (MBR40200PT) (Per Leg)

Ordering information

Part Number	Package	Delivery mode
MBR40100PT THRU MBR40200PT	TO-3P	30 pieces / Tube

Marking Code Information


MBR40xxxPT = Product Type Marking Code

 = polarity

Disclaimer

All product specifications and data are subject to change without notice.

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