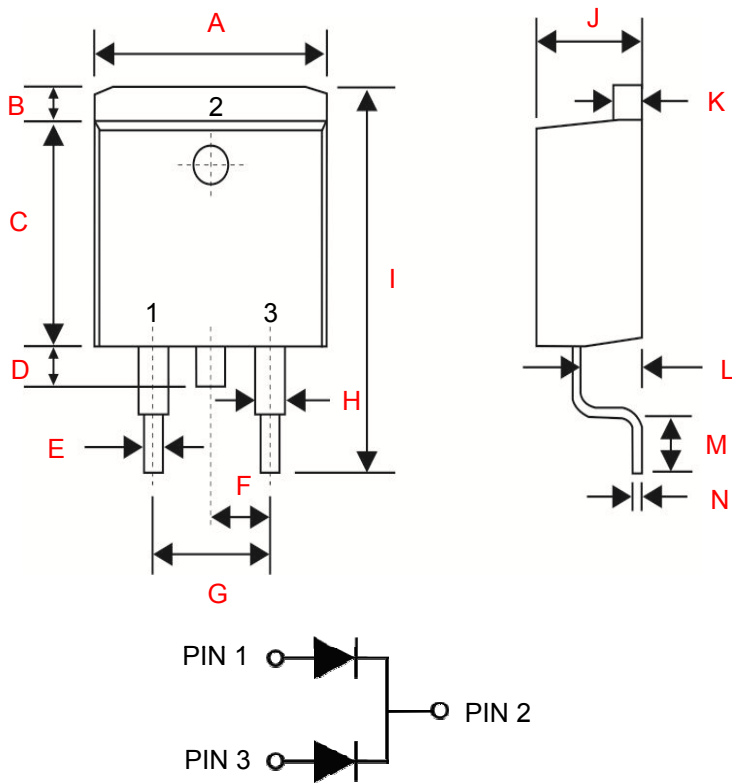


High Power Schottky Barrier Rectifier

Package Outline Dimensions (millimeters)



TO-263 (D ² PAK)		
Dim.	Min.	Max.
A	10.01	10.31
B	1.27	1.40
C	8.76	9.02
D	1.30	1.75
E	0.71	0.91
F	2.54 BSC	
G	4.98	5.18
H	1.17	1.37
I	15.00	15.85
J	4.47	4.67
K	1.17	1.37
L	2.52	2.82
M	2.29	2.79
N	0.28	0.48
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 & Halogen-free part

Mechanical

- Molded Plastic Low profile TO-263 (D²PAK)
- Plastic materials used carries underwriters laboratory flammability classification 94V-0
- Lead Temperature for Soldering Purposes : 265°C Max. for 10 Seconds
- Device Weight : Approximated 1.70 grams

Maximum Ratings & Electrical Characteristics (T_A = 25°C unless otherwise specified)

Parameter	Symbol	MBRB 10100CT	MBRB 10150CT	MBRB 10200CT	Units
DC Blocking Voltage	V _{RM}	100	150	200	
Working Peak Reverse Voltage	V _{RWM}	70	105	140	Volts
Peak Repetitive Reverse Voltage	V _{RRM}	100	150	200	
Average Rectified Output Current (Total Device)	I _O	10			Amps
Non-Repetitive Peak Forward Surge Current (Per Leg) (Surge applied at rated load conditions half wave, single phase, 60Hz)	I _{FSM}	125			Amps
Instantaneous Forward Voltage (Per Leg) I _F = 5A , T _A = 25°C	V _F	0.85	0.87	0.9	Volts
Instantaneous Reverse Current (Per Leg) V _R = V _{RRM} , T _A = 25°C V _R = V _{RRM} , T _A = 125°C	I _R	0.1 10			mA

NOTE : 1.Test with 2inch Al board

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

Parameter	Symbol	Value	Units
Maximum Thermal Resistance Junction to Case	$R_{\theta_{JC}}$	5.0	$^\circ\text{C} / \text{W}$
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)

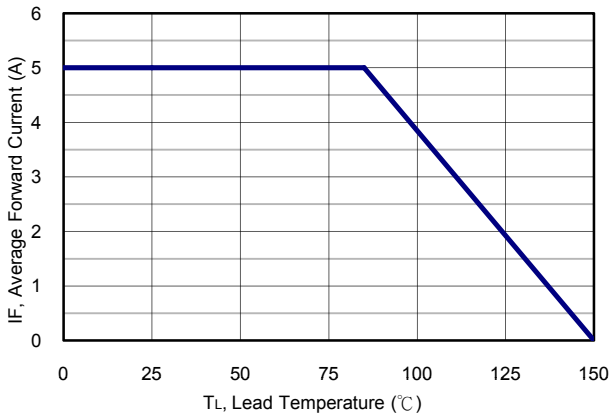


Figure 1: Current Derating Curves (Per Leg)

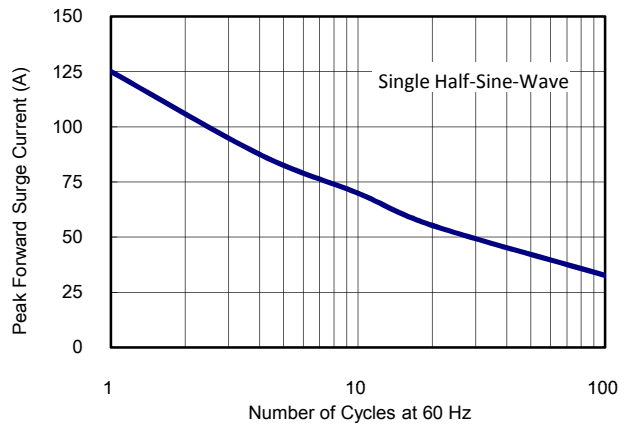


Figure 2: Peak Forward Surge Current (Per Leg)

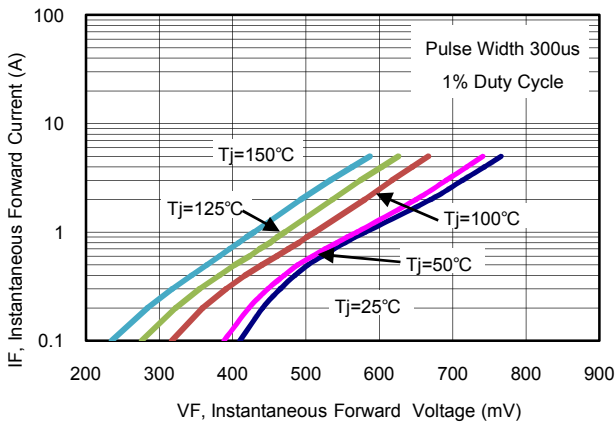


Figure 3: Typical Forward Characteristics (MBRB10100CT) (Per Leg)

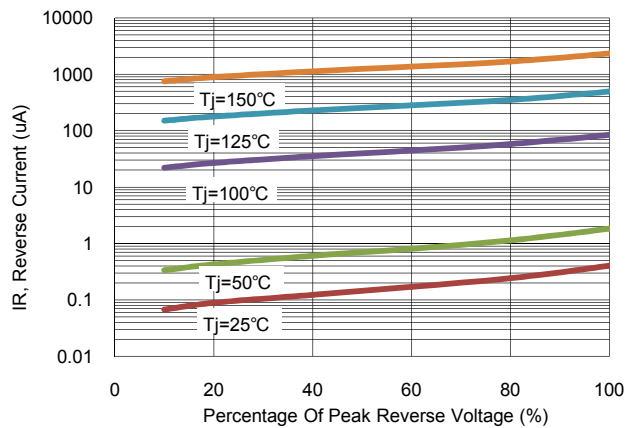


Figure 4: Typical Reverse Characteristics (MBRB10100CT) (Per Leg)

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

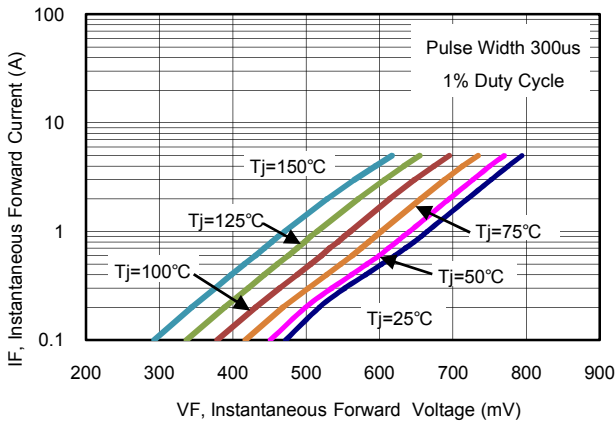


Figure 5: Typical Forward Characteristics (MBRB10150CT) (Per Leg)

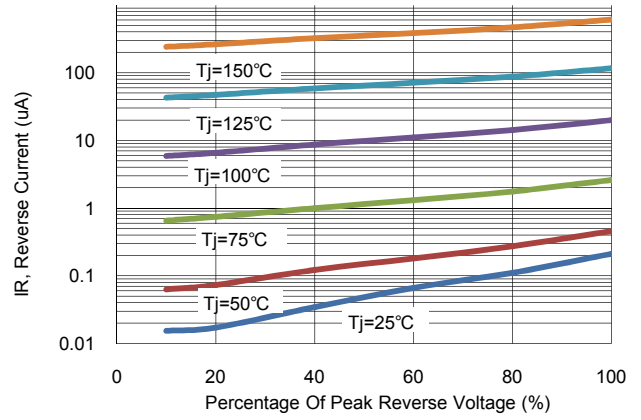


Figure 6: Typical Reverse Characteristics (MBRB10150CT) (Per Leg)

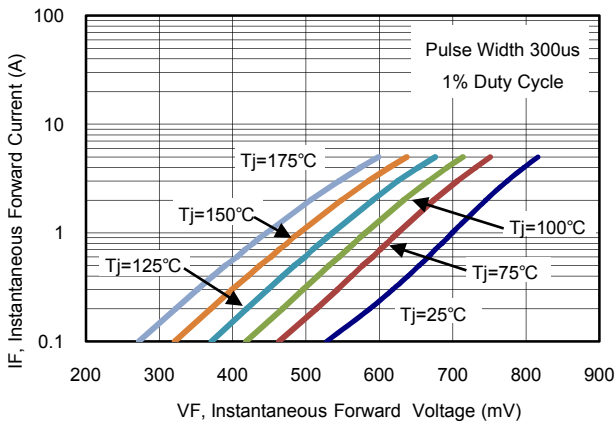


Figure 7: Typical Forward Characteristics (MBRB10200CT) (Per Leg)

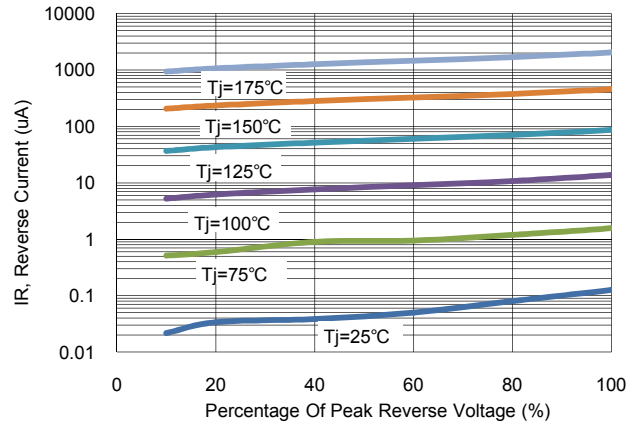
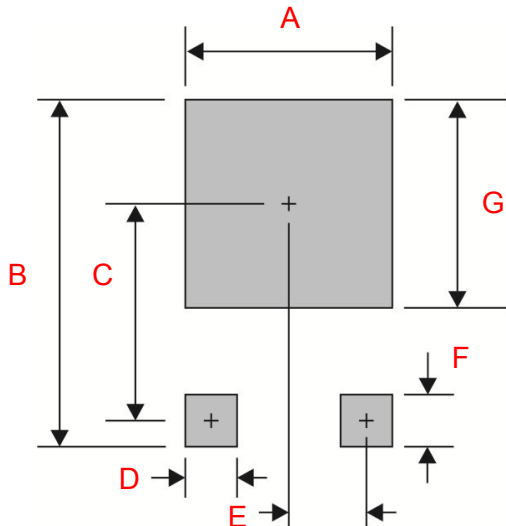


Figure 8: Typical Reverse Characteristics (MBRB10200CT) (Per Leg)

Suggested Pad Layout


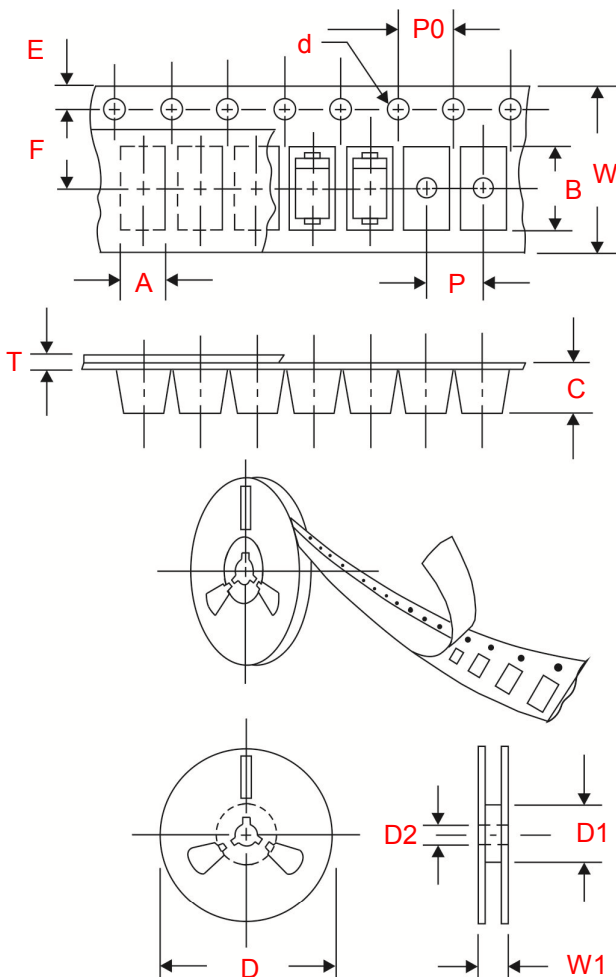
TO-263 (D2PAK)	
Symbol	Dimensions
A	10.80
B	16.90
C	9.50
D	1.80
E	2.50
F	3.50
G	11.40
All Dimensions in millimeter	

Ordering information

Part Number	Package	Delivery mode
MBRB10100CT THRU MBRB10200CT	TO-263 (D2PAK)	800 pieces / 13" Reel

Tape and Reel Dimensions (millimeters)

Surface Mount Device are packed in accordance with EIA standard RS-481-D and specification.



Item	Symbol	Dimensions (mm)
		TO-263 (D2PAK)
Carrier width	A	10.6 ± 0.1
Carrier length	B	15.8 ± 0.1
Carrier depth	C	4.9 ± 0.1
Sprocket hole	d	1.6 ± 0.1
Reel outside diameter	D	330.0 ± 1.0
Reel inner diameter	D1	102.0 ± 1.0
Feed hole diameter	D2	13.0 ± 1.0
Stocket hole position	E	1.75 ± 0.1
Punch hole position	F	11.5 ± 0.1
Punch hole pitch	P	16.0 ± 0.1
Sprocket hole pitch	P0	4.0 ± 0.1
Total tape thickness	T	0.35 ± 0.1
Tape width	W	24.0 ± 0.3
Reel width	W1	19.1 ± 1.5

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