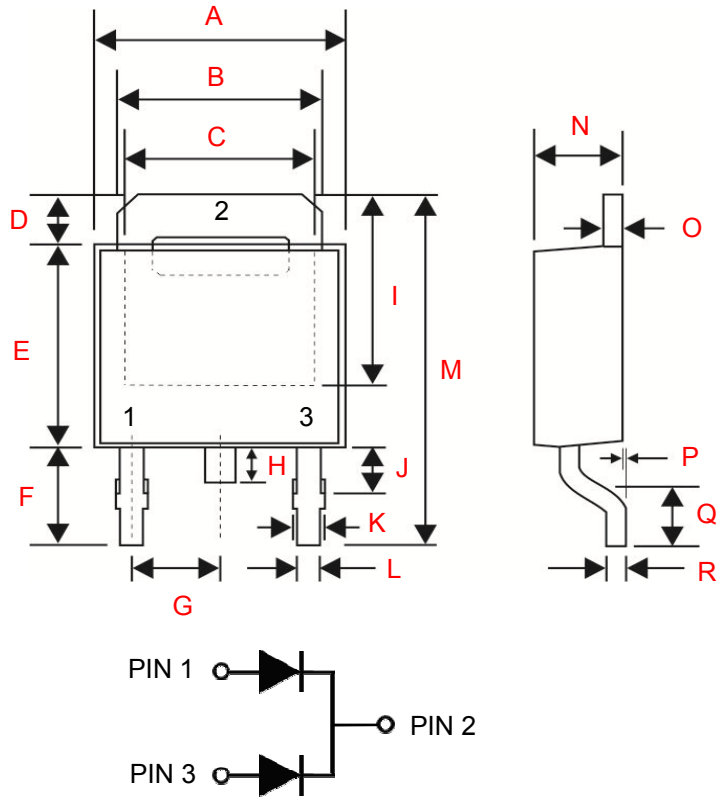
High Power Schottky Barrier Rectifier

Package Outline Dimensions (millimeters)



TO-252 (DPAK)		
Dim.	Min.	Max.
A	6.35	6.73
B	5.21	5.46
C	4.32	----
D	0.89	1.27
E	5.97	6.22
F	2.63 REF	
G	2.29 BSC	
H	0.64	1.02
I	5.21	----
J	1.15	1.52
K	0.71	1.14
L	0.64	0.88
M	9.40	10.42
N	2.19	2.38
O	0.46	0.58
P	0.00	0.13
Q	1.39	1.65
R	0.508 BSC	
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-252 (DPAK)
- Plastic materials used carries underwriters laboratory flammability classification 94V-0
- Lead Temperature for Soldering Purposes : 265℃ Max. for 10 Seconds
- Device Weight : Approximated 0.34 grams

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

Parameter	Symbol	MBRD 1040CT	MBRD 1060CT	Units
DC Blocking Voltage	V_{RM}	40	60	Volts
Working Peak Reverse Voltage	V_{RWM}	28	42	
Peak Repetitive Reverse Voltage	V_{RRM}	40	60	
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℃	V_F	0.65	0.75	Volts
Instantaneous Reverse Current (Per Leg) $V_R = V_{RRM}$, T_A = 25℃	I_R	0.1		mA
$V_R = V_{RRM}$, T_A = 125℃		10		

NOTE： 1.Test with 2inch Al board

Thermal Characteristics (T_A = 25℃ unless otherwise specified) (Per Leg)

Parameter		Symbol	Value	Units
Maximum Thermal Resistance	Junction to Ambient	$R\theta_{JA}$	22.0	℃ / W
Operating & Storage Junction Temperature		T_J	150	℃
		T_{STG}	- 65 to +150	

Ratings and Characteristics Curves (T_A = 25℃ unless otherwise specified)

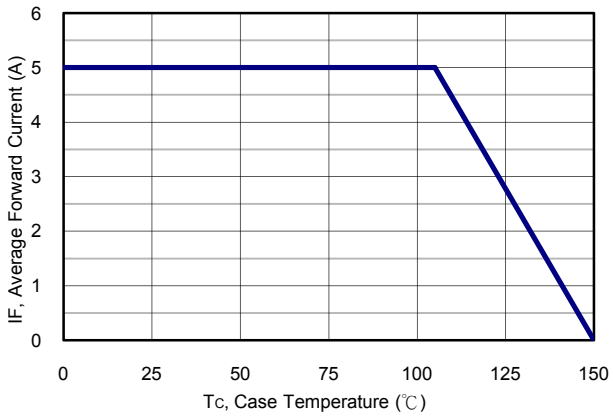


Figure 1: Current Derating Curves (Per Leg)

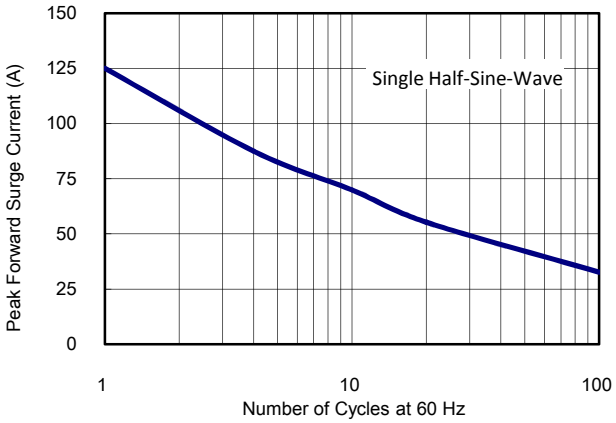


Figure 2: Peak Forward Surge Current (Per Leg)

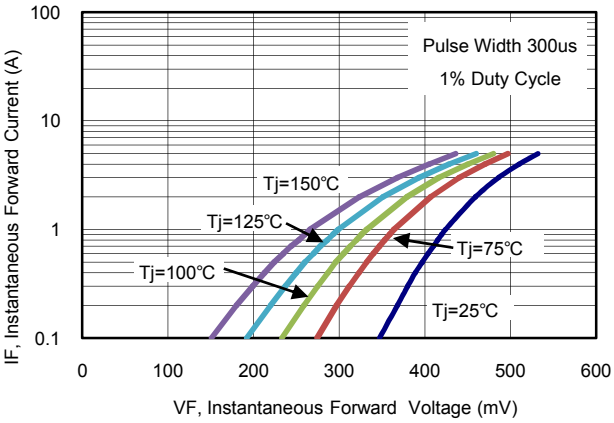


Figure 3: Typical Forward Characteristics (MBRD1040CT) (Per Leg)

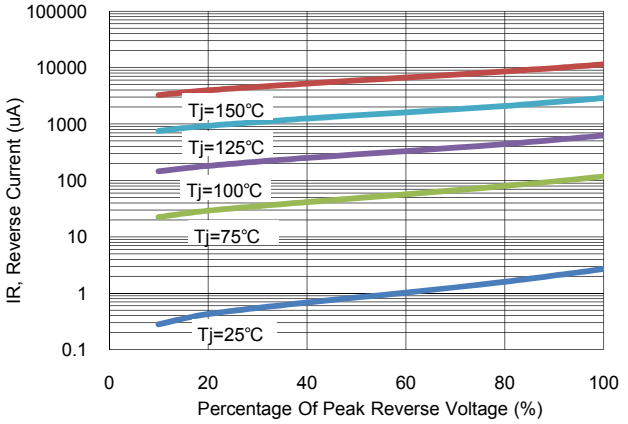


Figure 4: Typical Reverse Characteristics (MBRD1040CT) (Per Leg)

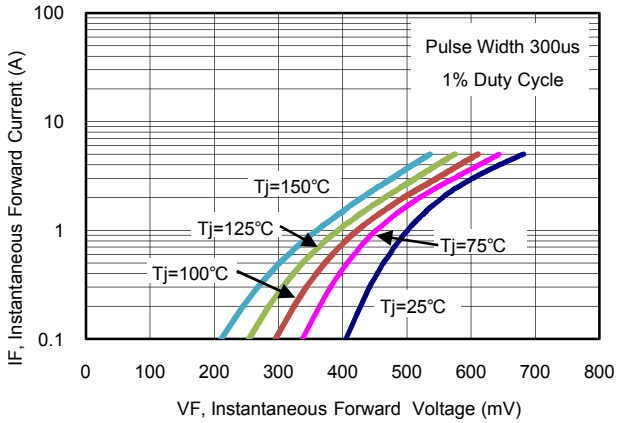


Figure 5: Typical Forward Characteristics (MBRD1060CT) (Per Leg)

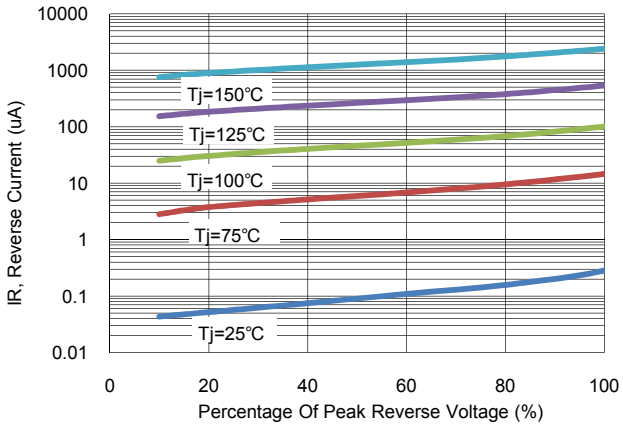
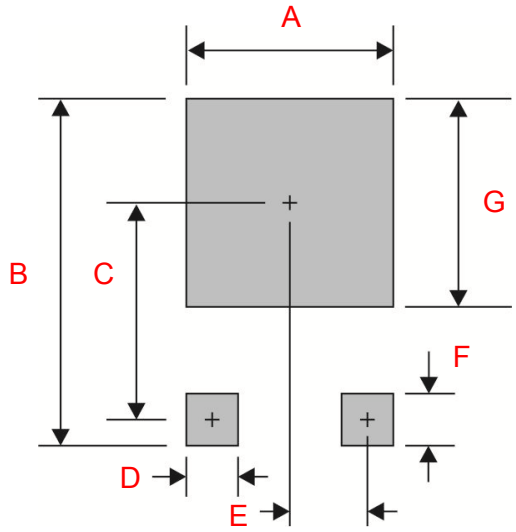


Figure 6: Typical Reverse Characteristics (MBRD1060CT) (Per Leg)

Suggested Pad Layout



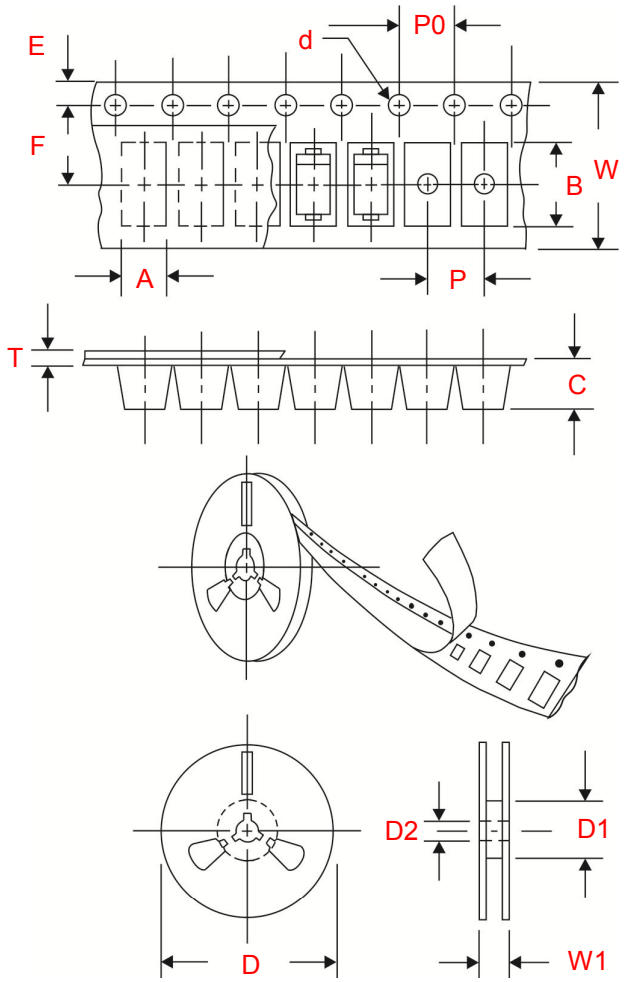
TO-252 (DPAK)	
Symbol	Dimensions
A	7.00
B	11.60
C	6.90
D	1.50
E	2.30
F	2.50
G	7.00
All Dimensions in millimeter	

Ordering information

Part Number	Package	Delivery mode
MBRD1040CT / MBRD1060CT	TO-252 (DPAK)	2,500 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-252 (DPAK)
Carrier width	A	6.9 ± 0.1
Carrier length	B	10.6 ± 0.1
Carrier depth	C	2.65 ± 0.1
Sprocket hole	d	1.55 ± 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	7.5 ± 0.1
Punch hole pitch	P	8.0 ± 0.1
Sprocket hole pitch	P0	4.0 ± 0.1
Totall tape thickness	T	0.3 ± 0.1
Tape width	W	16.0 ± 0.3
Reel width	W1	11.1 ± 1.5

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