

Typical Applications

Typical applications are in switching power supplies, converters, freewheeling diodes, and reverse battery protection.

Mechanical Data

Package: TO-263

Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant

Terminals: Tin plated leads, solderable per J-STD-002 and JESD22-B102

Polarity: As marked

Maximum Ratings (T_a=25 Unless otherwise specified)

PARAMETER	SYMBOL	UNIT	MBRB1045CTS
Device marking code			MBRB1045CTS
Repetitive Peak Reverse Voltage	V _{RRM}	V	45
Average Rectified Output Current @60Hz sine wave, R-load, T _c FIG.1	I _O	A	10
Surge(Non-repetitive)Forward Current @60Hz half sine-wave, 1 cycy	I _{FSM}	A	100
Current Squared Time @1ms t 8.3ms T _j =25	I ² t	A ² s	41
Storage Temperature	T _{stg}		-55 ~ +150
Junction Temperature	T _j		-55 ~ +150

Electrical Characteristics T_a=25 Unless otherwise specified

PARAMETER	SYMBOL	UNIT	TEST CONDITIONS	MBRB1045CTS
Maximum instantaneous forward voltage drop per diode	V _{FM}	V	I _{FM} =5.0A	0.65
Maximum DC reverse current at rated DC blocking voltage per diode	I _{R1}	mA	V _{RM} =V _{RRM} T _a =25	0.2
	I _{R2}		V _{RM} =V _{RRM} T _a =100	20

Note1:Pulse test:300uS pulse width,1% duty cycle

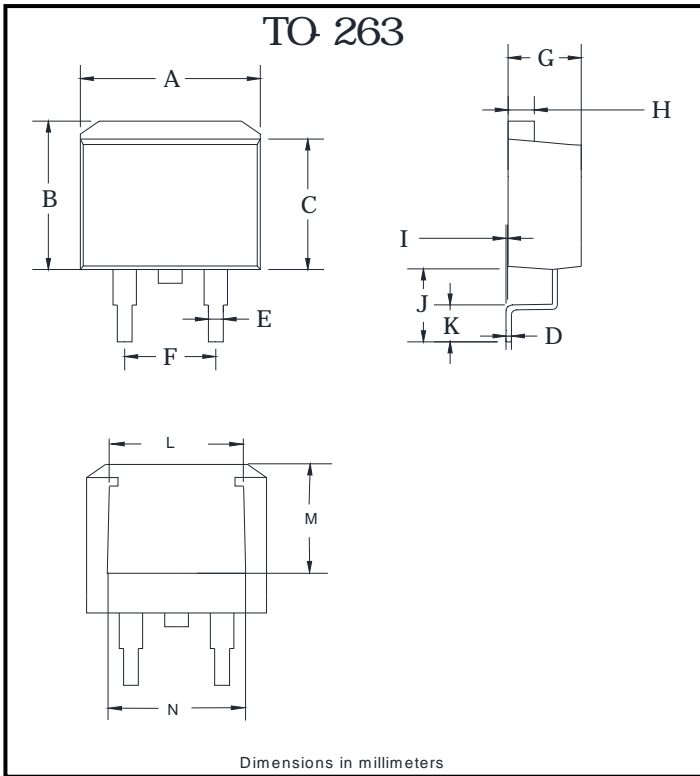
Note2:Pulse test:pulse with 40mS





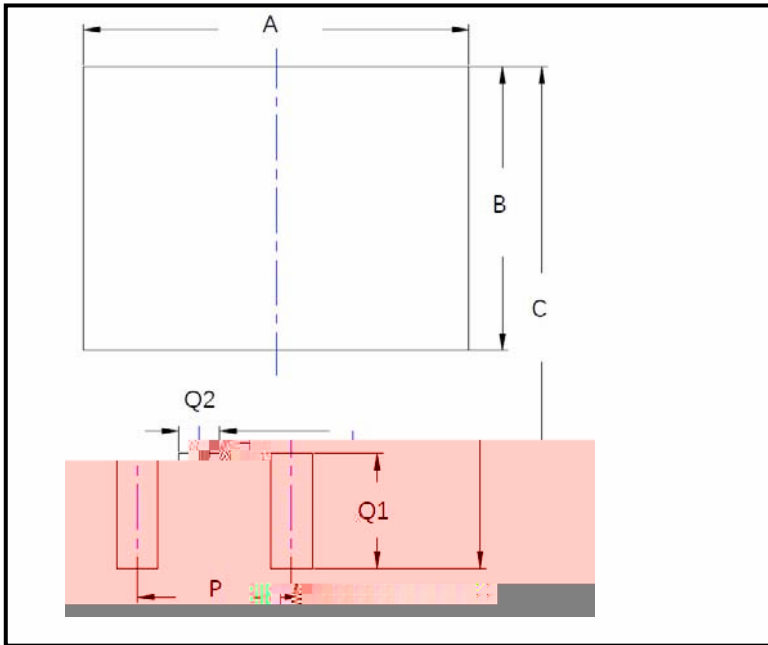
MBRB1045CTS

Outline Dimensions



TO-263		
Dim	Min	Max
A	9.5	11.5
B	9.7	10.5
C	8.4	9.0
D	0.28	0.64
E	0.68	0.94
F	4.55	5.6
G	4.04	5.10
H	1.14	1.4
I	0	0.2
J	4.9	6.05
K	1.79	2.79
L	7.3	7.9
M	6.2	6.8
N	7.6	8.2

Suggested Pad Layout



Dim	Millimeters
A	12.7
B	9.4
C	16.6
P	5.08
Q1	3.8
Q2	1.35



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