

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

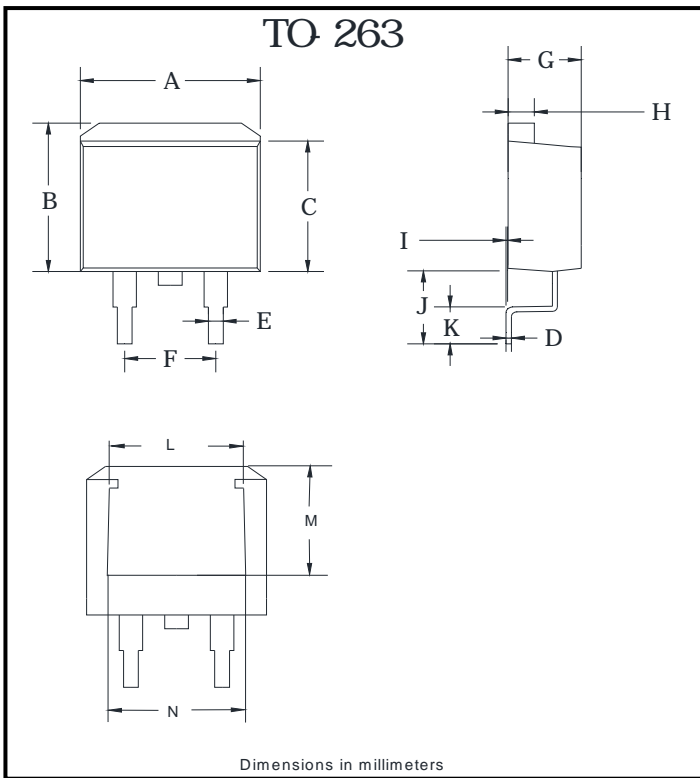
Note2:Pulse test:pulse width 40mS





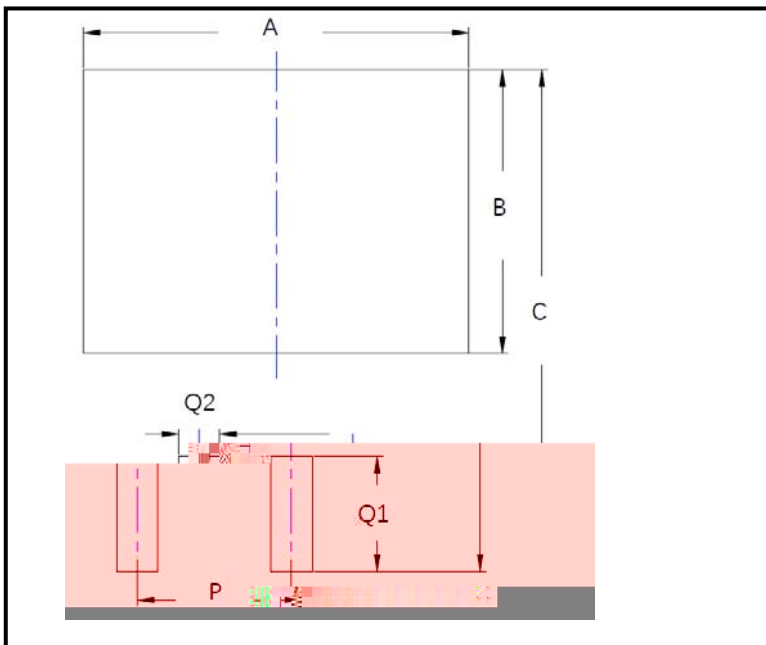
MBRB1045CTS

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



Disclaimer

The information presented in this document is for reference only. Yangzhou Yangjie Electronic Technology Co., Ltd. reserves the right to make changes without notice for the specification of the products displayed herein to improve reliability, function or design or otherwise.

The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), Yangjie or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale.

This publication supersedes & replaces all information previously supplied. For additional information, please visit our website [http:// www.21yangjie.com](http://www.21yangjie.com) , or consult your nearest Yangjie's sales office for further assistance.