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With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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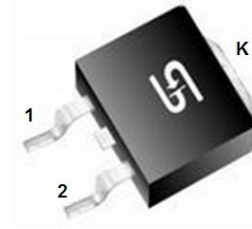
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



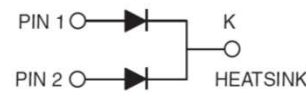
30A, 45V Dual Common Cathode Schottky Rectifier

FEATURES

- Low power loss, high efficiency
- Ideal for automated placement
- Guardring for overvoltage protection
- High surge current capability
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21 definition



TO-263AB (D²PAK)



MECHANICAL DATA

Case: TO-263AB (D²PAK)

Molding compound, UL flammability classification rating 94V-0

Moisture sensitivity level: level 1, per J-STD-020

Part no. with suffix "H" means AEC-Q101 qualified

Packing code with suffix "G" means green compound (halogen-free)

Terminal: Matte tin plated leads, solderable per JESD22-B102

Meet JESD 201 class 2 whisker test

Polarity: As marked

Weight: 1.4 g (approximately)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

PARAMETER	SYMBOL	MBRS3045CT	UNIT
Maximum repetitive peak reverse voltage	V _{RRM}	45	V
Maximum RMS voltage	V _{RMS}	31	V
Maximum DC blocking voltage	V _{DC}	45	V
Maximum average forward rectified current	I _{F(AV)}	30	A
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I _{FSM}	220	A
Maximum instantaneous forward voltage (Note 1) I _F = 15A @ T _J =25°C I _F = 15A @ T _J =125°C I _F = 30A @ T _J =25°C I _F = 30A @ T _J =125°C	V _F	0.70 0.60 0.90 0.75	V
Maximum reverse current @ rated V _R T _J =25°C T _J =125°C	I _R	0.2 15	mA
Voltage rate of change (Rated V _R)	dV/dt	10000	V/μs
Maximum thermal resistance	R _{θJC} R _{θJA}	1.5 50	°C/W
Operating junction temperature range	T _J	- 55 to +150	°C
Storage temperature range	T _{STG}	- 55 to +150	°C

Note 1: Pulse test with PW=300μs, 1% duty cycle

ORDERING INFORMATION					
PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX	PACKAGE	PACKING
MBRS3045CT	H	RN	G	D ² PAK	800 / 13" Paper reel

EXAMPLE					
PREFERRED PART NO.	PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION
MBRS3045CTHRNG	MBRS3045CT	H	RN	G	AEC-Q101 qualified Green compound

RATINGS AND CHARACTERISTICS CURVES

(T_A=25°C unless otherwise noted)

FIG.1 FORWARD CURRENT DERATING CURVE

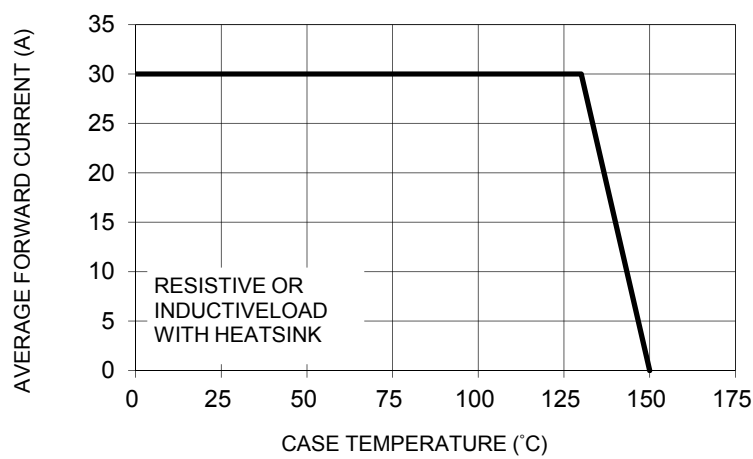


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

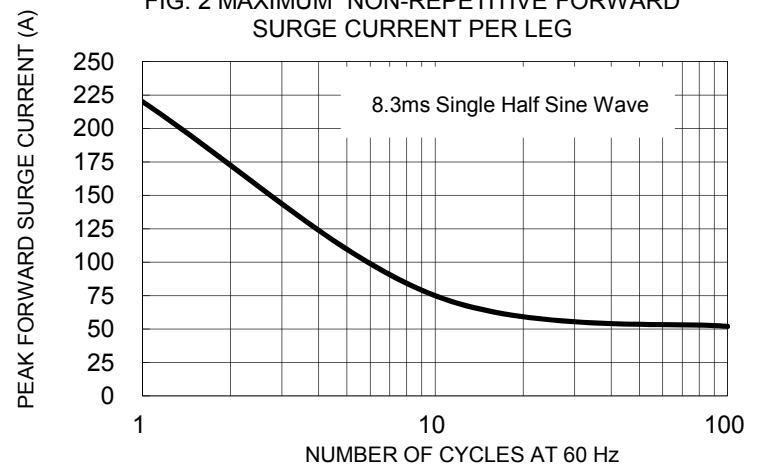


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

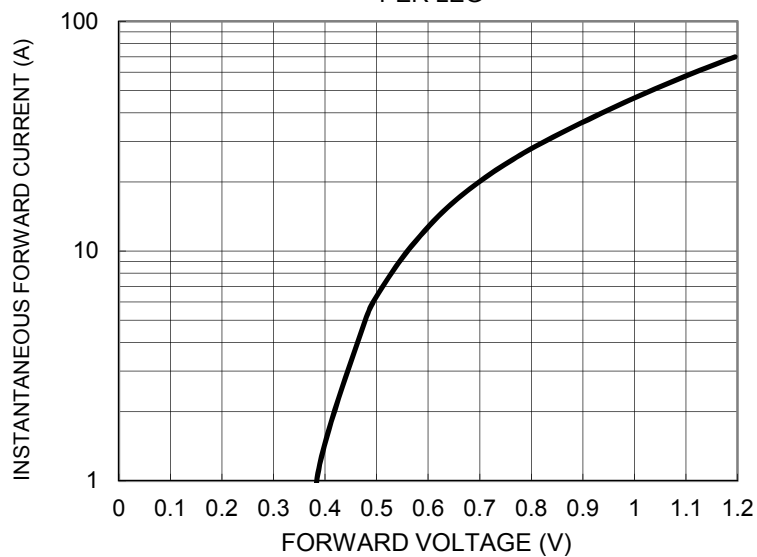


FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG

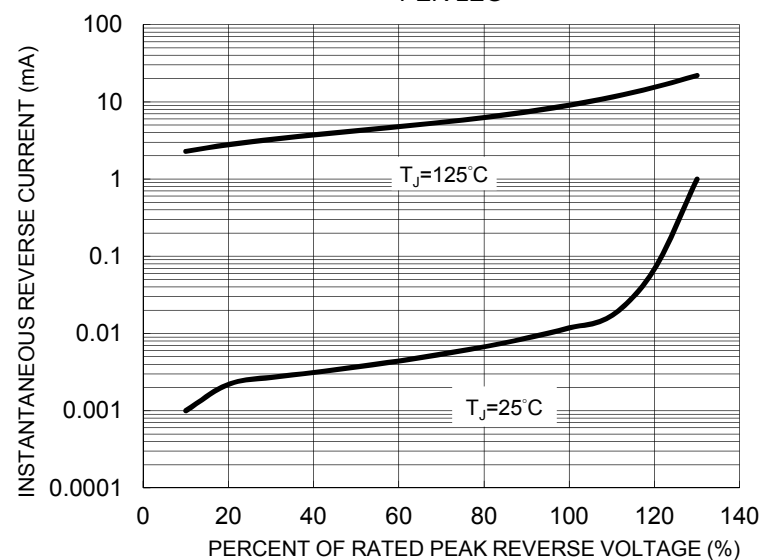


FIG. 5 TYPICAL JUNCTION CAPACITANCE PER LEG

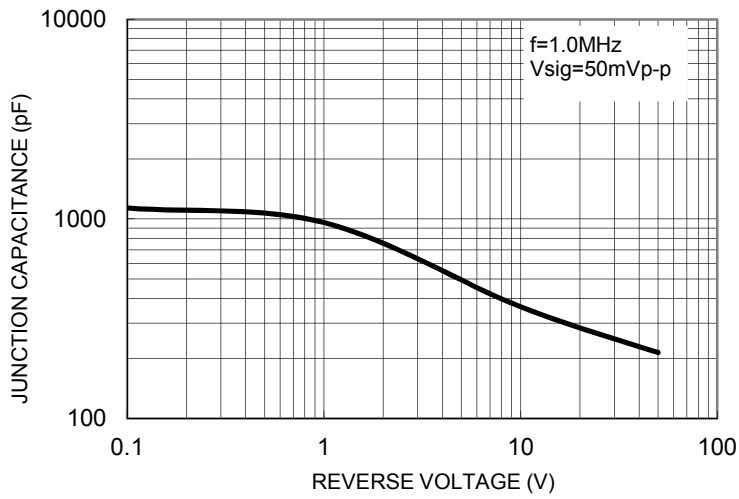
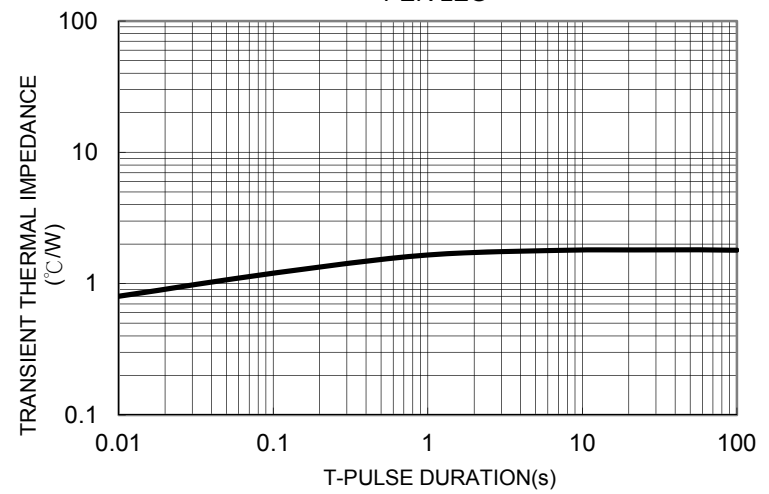
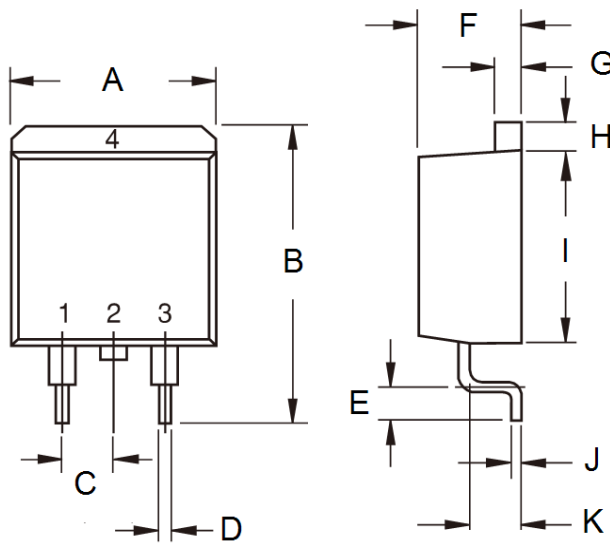


FIG. 6 TYPICAL TRANSIENT THERMAL IMPEDANCE PER LEG

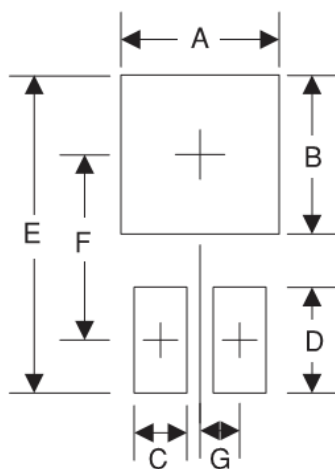


PACKAGE OUTLINE DIMENSIONS TO-263AB (D²PAK)



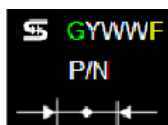
DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	-	10.50	-	0.413
B	14.60	15.88	0.575	0.625
C	2.41	2.67	0.095	0.105
D	0.68	0.94	0.027	0.037
E	2.29	2.79	0.090	0.110
F	4.44	4.70	0.175	0.185
G	1.14	1.40	0.045	0.055
H	1.14	1.40	0.045	0.055
I	8.25	9.25	0.325	0.364
J	0.36	0.53	0.014	0.021
K	2.03	2.79	0.080	0.110

SUGGESTED PAD LAYOUT



Symbol	Unit (mm)	Unit (inch)
A	10.8	0.425
B	8.3	0.327
C	1.1	0.043
D	3.5	0.138
E	16.9	0.665
F	9.5	0.374
G	2.5	0.098

MARKING DIAGRAM



P/N = Specific Device Code
 G = Green Compound
 YWW = Date Code
 F = Factory Code

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