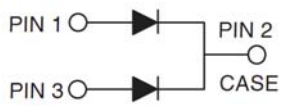
Dual Common Cathode Schottky Rectifier

FEATURES

- Low power loss, high efficiency
- 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

I^2PAK



Pb-Free

RoHS COMPLIANT

MECHANICAL DATA

Case: I^2PAK
Molding compound, UL flammability classification rating 94V-0
Base P/N with suffix "G" on packing code - halogen-free
Terminal: Matte tin plated leads, solderable per JESD22-B102
Meet JESD 201 class 1A whisker test
Polarity: As marked
Weight: 1.7 g (approximately)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T_A=25℃ unless otherwise noted)			
PARAMETER	SYMBOL	MBRI20100CT	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	100	V
Maximum RMS voltage	V_{RMS}	70	V
Maximum DC blocking voltage	V_{DC}	100	V
Maximum average forward rectified current	$I_{F(AV)}$	20	A
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	150	A
Maximum instantaneous forward voltage (Note 2) I_F= 10 A, T_J=25℃ I_F= 10 A, T_J=125℃ I_F= 20 A, T_J=25℃ I_F= 20 A, T_J=125℃	V_F	 0.85 0.75 0.95 0.85	V
Maximum reverse current @ rated VR T_J=25 ℃ T_J=125 ℃	I_R	0.1 5	mA
Voltage rate of change (Rated V_R)	dV/dt	10000	V/μs
Typical thermal resistance	$R_{\theta JC}$	2	$^OC/W$
Operating junction temperature range	T_J	- 55 to +150	^OC
Storage temperature range	T_{STG}	- 55 to +150	^OC

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

ORDERING INFORMATION				
PART NO.	PACKING CODE	GREEN COMPOUND CODE	PACKAGE	PACKING
MBRI20100CT	C0	Suffix "G"	I^2PAK	50 / Tube

EXAMPLE				
PREFERRED P/N	PART NO.	PACKING CODE	GREEN COMPOUND CODE	DESCRIPTION
MBRI20100CT C0	MBRI20100CT	C0		
MBRI20100CT C0G	MBRI20100CT	C0	G	Green compound

RATINGS AND CHARACTERISTICS CURVES

(TA=25℃ unless otherwise noted)

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

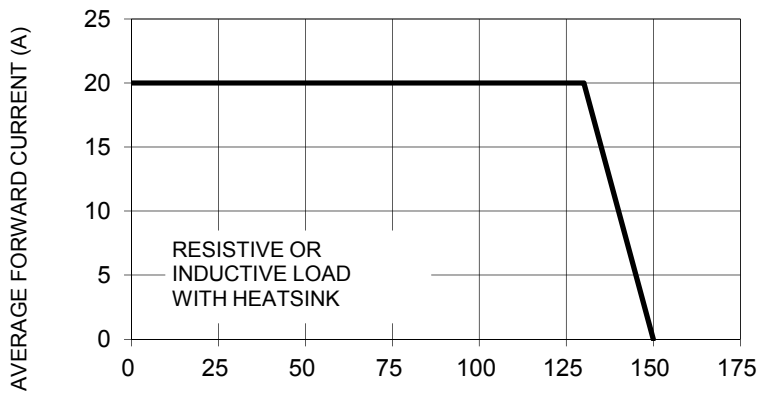


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

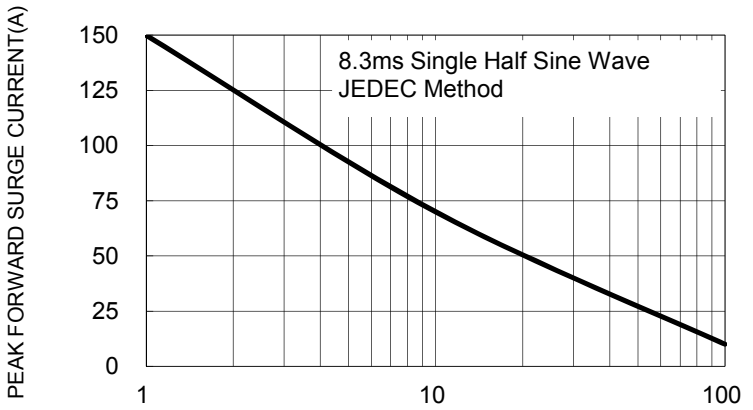


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

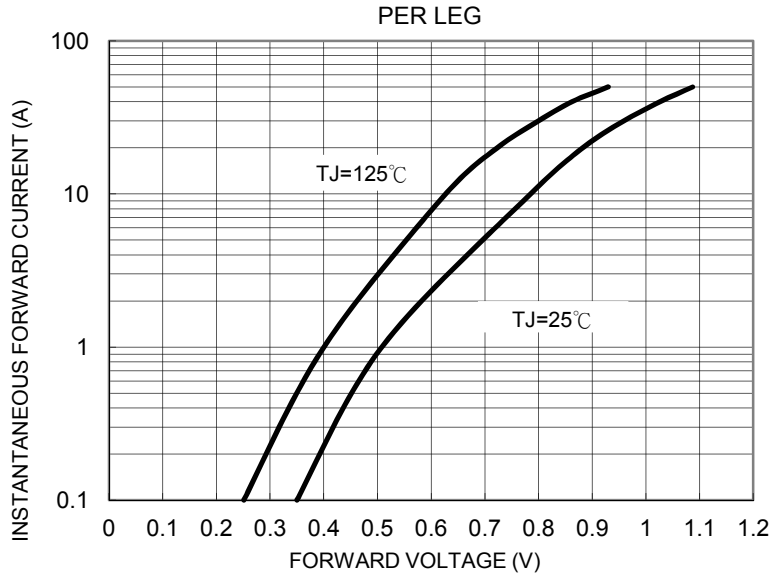


FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG

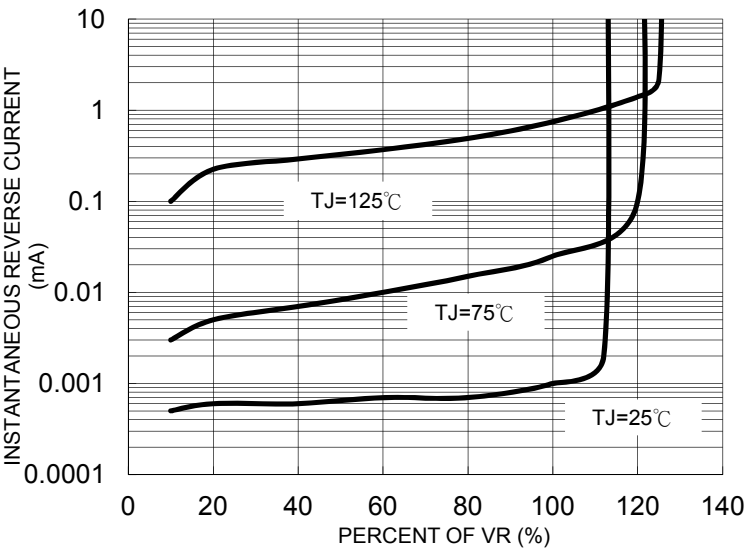


FIG. 5 TYPICAL JUNCTION CAPACITANCE

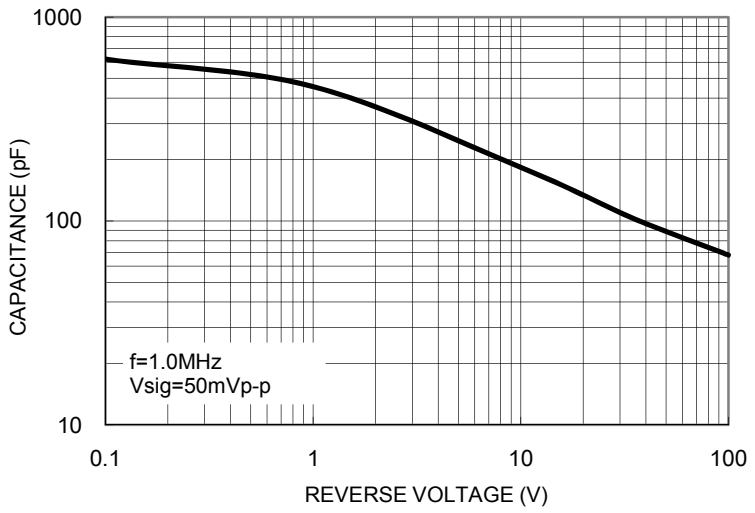
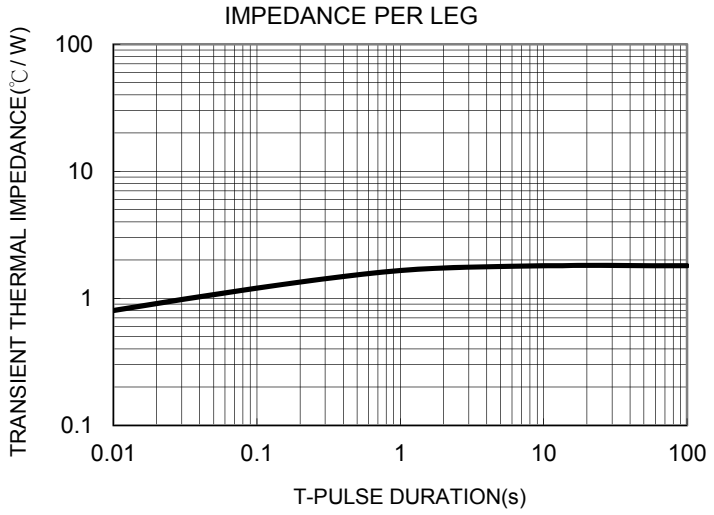
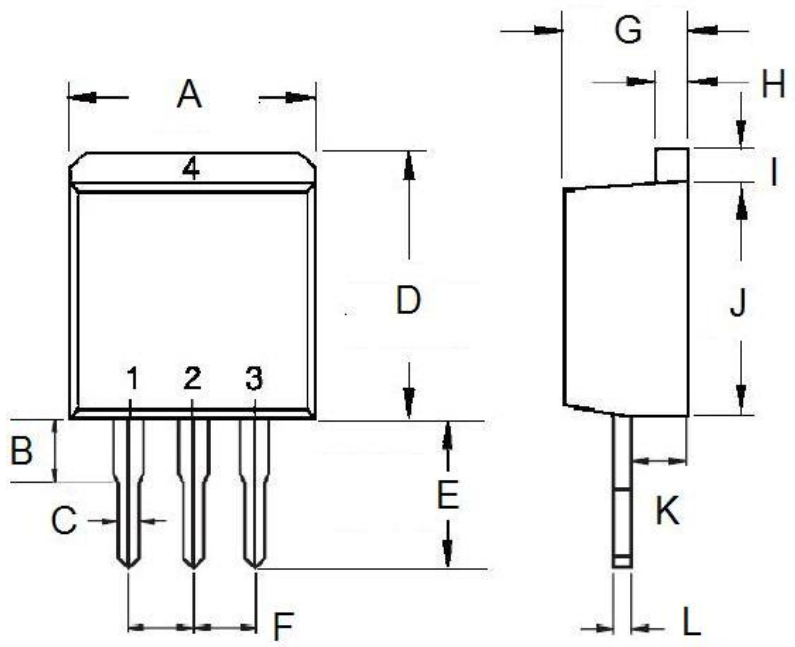


FIG. 6 TYPICAL TRANSIENT THERMAL IMPEDANCE PER LEG



PACKAGE OUTLINE DIMENSIONS



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	-	10.50	-	0.413
B	3.56	4.06	0.140	0.160
C	0.68	0.94	0.027	0.037
D	14.60	15.88	0.575	0.625
E	7.58	8.12	0.298	0.320
F	2.41	2.67	0.095	0.105
G	4.44	4.70	0.175	0.185
H	1.14	1.40	0.045	0.055
I	1.14	1.40	0.045	0.055
J	8.25	9.25	0.325	0.364
K	2.54	2.79	0.100	0.110
L	0.35	0.64	0.014	0.025

MARKING DIAGRAM

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

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