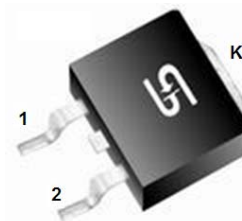
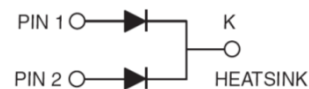


- Guardring for over-voltage protection
- High surge current capability
- Moisture sensitivity level : level 1, per J-STD-020
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21 definition



TO-263AB(D²PAK)



MECHANICAL DATA

Case : TO-263AB(D²PAK)

Molding compound, UL flammability classification rating 94V-0

Base P/N with suffix "G" on packing code - halogen-free, RoHS compliant

Base P/N with prefix "H" on packing code - AEC-Q101 qualified

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

Meet JESD 201 class 1A whisker test,

with prefix "H" on packing code meet JESD 201 class 2 whisker test

Polarity : As marked

Weight : 1.4 gram (approximately)

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

PARAMETER	SYMBOL	MBRS 10H100CT	MBRS 10H150CT	M 10H
Maximum repetitive peak reverse voltage	V _{RRM}	100	150	2
Maximum RMS voltage	V _{RMS}	70	105	1
Maximum DC blocking voltage	V _{DC}	100	150	2
Maximum average forward rectified current	I _{F(AV)}	10		
Peak Repetitive Forward Current (Rated VR, Square Wave, 20KHz)	I _{FRM}	10		
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I _{FSM}	120		
Peak Repetitive Reverse Surge Current (Note 1)	I _{RRM}	1		
Maximum Instantaneous Forward Voltage (Note 2) IF= 5 A, T _J =25°C IF= 5 A, T _J =125°C IF= 10 A, T _J =25°C IF= 10 A, T _J =125°C	V _F	0.85 0.75 0.95 0.85	0.88 0.75 0.97 0.85	
Maximum reverse current @ rated VR T _J =25 °C T _J =125 °C	I _R	5 1		
Voltage rate of change (Rated V _R)	dV/dt	10000		
Typical thermal resistance	R _{θJC}	3.5		
Operating junction temperature range	T _J	- 55 to + 175		
Storage temperature range	T _{STG}	- 55 to + 175		

Note 1 : tp = 2.0 μs, 1.0KHz

Note 2 : Pulse test with PW=300u sec, 1% duty cycle

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EXAMPLE					
PREFERRED P/N	PART NO.	AEC-Q101 QUALIFIED	PACKING CODE	GREEN COMPOUND CODE	
MBRS10H100CT RN	MBRS10H100CT		RN		
MBRS10H100CT RNG	MBRS10H100CT		RN	G	
MBRS10H100CTHRN	MBRS10H100CT	H	RN		A

RATINGS AND CHARACTERISTICS CURVES

(TA=25°C unless otherwise noted)

FIG. 1 FORWARD CURRENT DERATING CURVE

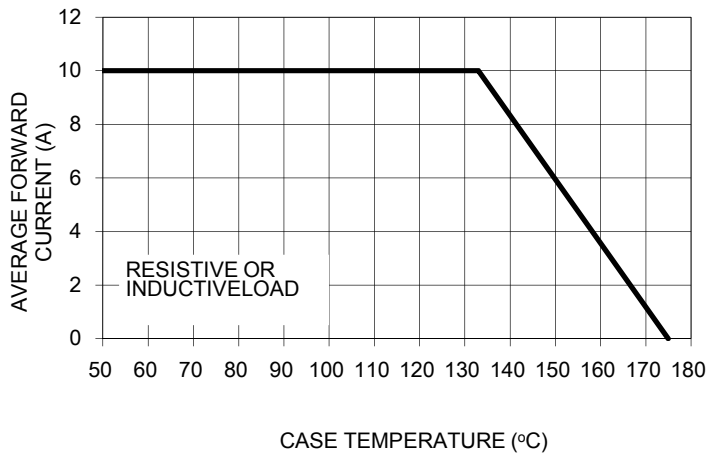


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD CURRENT

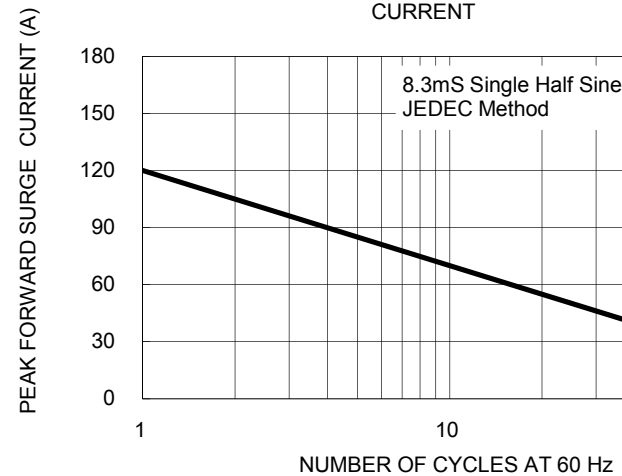


FIG. 3 TYPICAL FORWARD CHARACTERISTICS

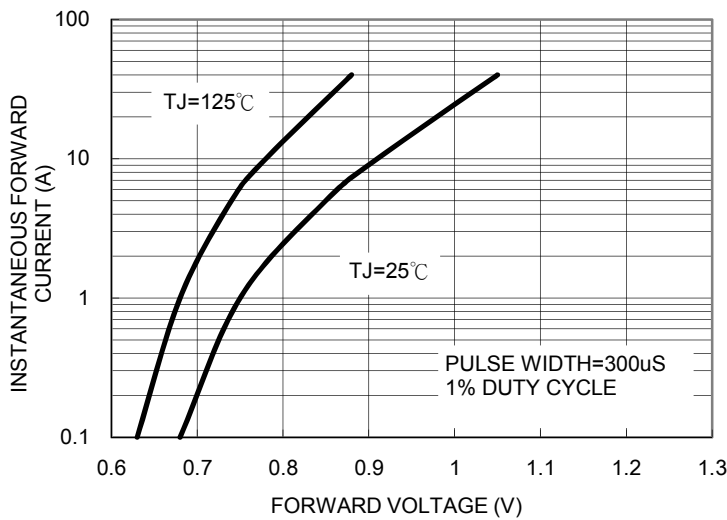
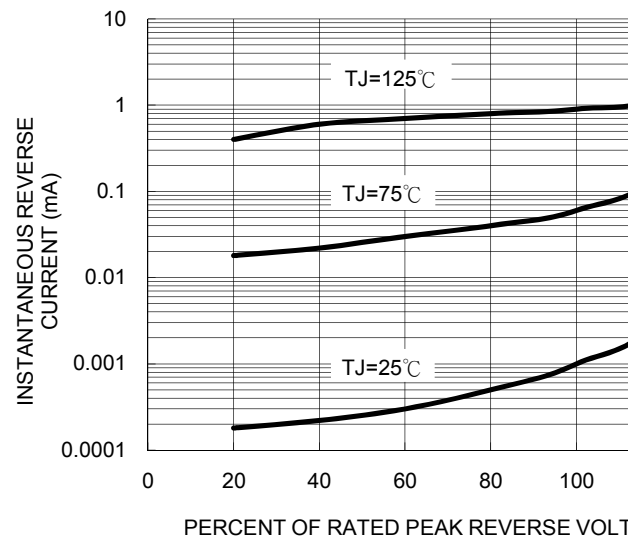
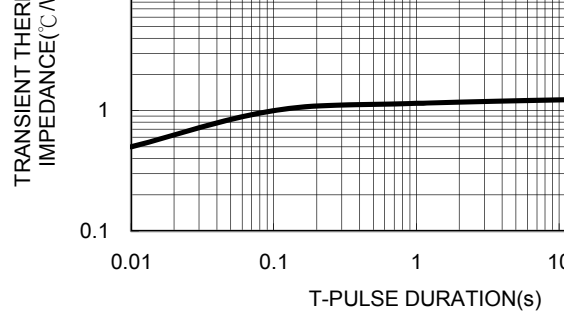
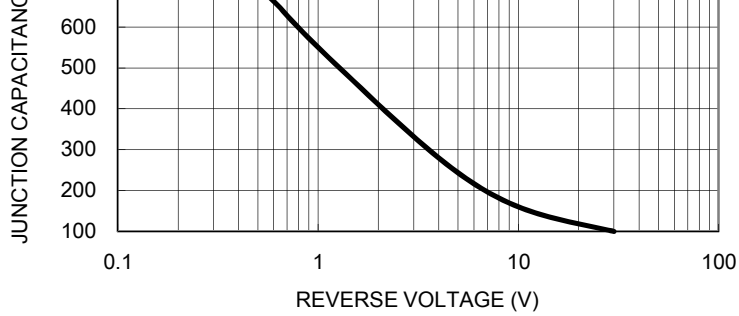
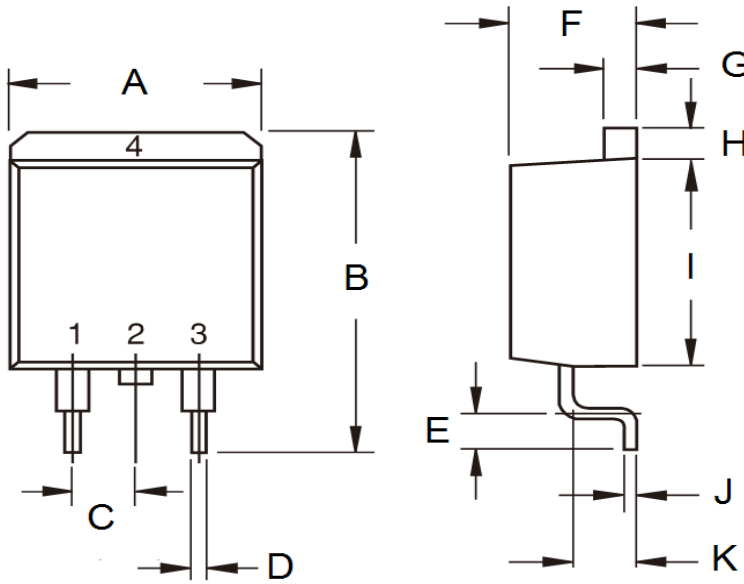


FIG. 4 TYPICAL REVERSE CHARACTERISTICS



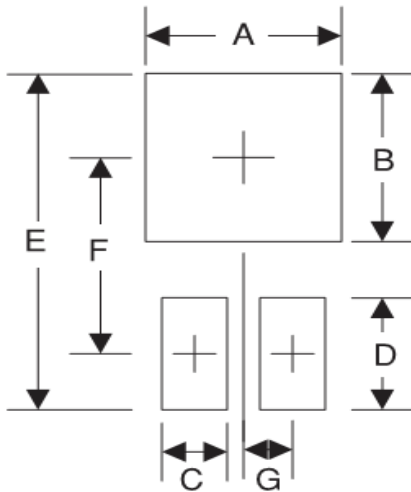


PACKAGE OUTLINE DIMENSIONS



DIM.	Unit(mm)		Unit
	Min	Max	
A	-	10.5	-
B	14.60	15.88	0.575
C	2.41	2.67	0.095
D	0.68	0.94	0.027
E	2.29	2.79	0.090
F	4.44	4.70	0.175
G	1.14	1.40	0.045
H	1.14	1.40	0.045
I	8.25	9.25	0.325
J	0.36	0.53	0.014
K	2.03	2.79	0.080

SUGGESTED PAD LAYOUT



Symbol	Unit(mm)
A	10.8
B	8.3
C	1.1
D	3.5
E	16.9
F	9.5
G	2.5

MARKING DIAGRAM



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

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