Glass Passivated Rectifiers

FEATURES

- Glass passivated chip junction
- High efficiency, Low VF
- High current capability
- High surge current capability
- Low power loss
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21 definition

DO-204AC (DO-15)

Pb-Free

RoHS COMPLIANT

MECHANICAL DATA

Case: DO-204AC (DO-15)

Molding compound, UL flammability classification rating 94V-0

Base P/N with suffix "G" on packing code - green compound (halogen-free)

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

Weight: 0.4g (approximately)

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

PARAMETER	SYMBOL	1N 5391G	1N 5392G	1N 5393G	1N 5395G	1N 5397G	1N 5398G	1N 5399G	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum average forward rectified current	$I_{F(AV)}$	1.5							A
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	50							A
Maximum instantaneous forward voltage (Note 1) @ 1.5 A	V_F	1.1		1.0					V
Maximum reverse current @ rated VR T_J=25 ℃ T_J=125 ℃	I_R	5 100							μA
Typical junction capacitance (Note 2)	Cj	15							pF
Typical thermal resistance	$R_{\theta jA}$	65							^{O}C/W
Operating junction temperature range	T_J	- 55 to +150							^{O}C
Storage temperature range	T_{STG}	- 55 to +150							^{O}C

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

Note 2: Measured at 1 MHz and Applied Reverse Voltage of 4.0V D.C.

ORDERING INFORMATION					
PART NO.	AEC-Q101 QUALIFIED	PACKING CODE	GREEN COMPOUND CODE	PACKAGE	PACKING
1N539xG (Note 1)	Prefix "H"	A0	Suffix "G"	DO-15	1,500 / Ammo box
		R0		DO-15	3,500 / 13" Paper reel
		B0		DO-15	1,000 / Bulk packing

Note 1: "x" defines voltage from 50V (1N5391G) to 1000V (1N5399G)

EXAMPLE					
PREFERRED P/N	PART NO.	AEC-Q101 QUALIFIED	PACKING CODE	GREEN COMPOUND CODE	DESCRIPTION
1N5391G A0	1N5391G		A0		
1N5391G A0G	1N5391G		A0	G	Green compound
1N5391GHA0	1N5391G	H	A0		AEC-Q101 qualified

RATINGS AND CHARACTERISTICS CURVES

(TA=25℃ unless otherwise noted)

FIG.1 MAXMUM FORWARD CURRENT DERATING CURVE

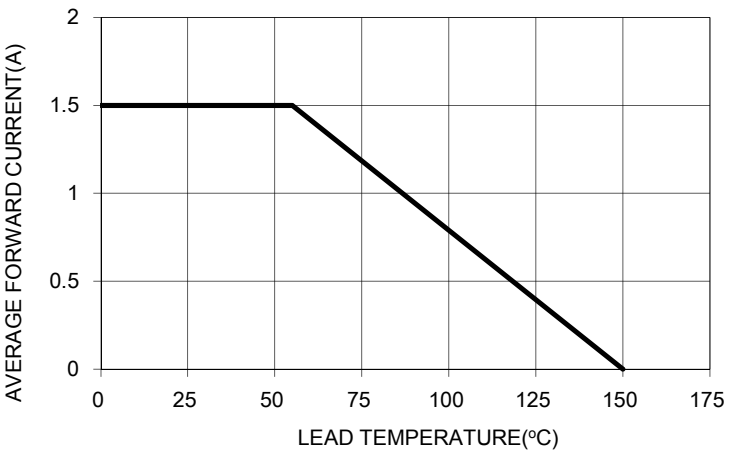


FIG. 2 TYPICAL REVERSE CHARACTERISTICS

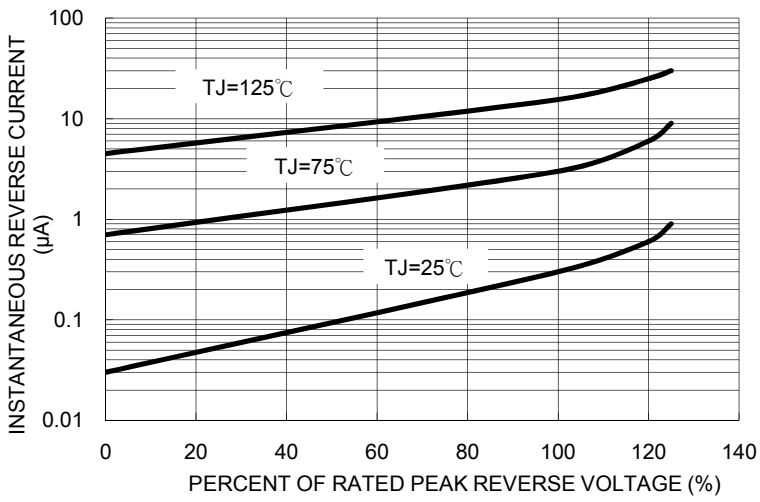


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

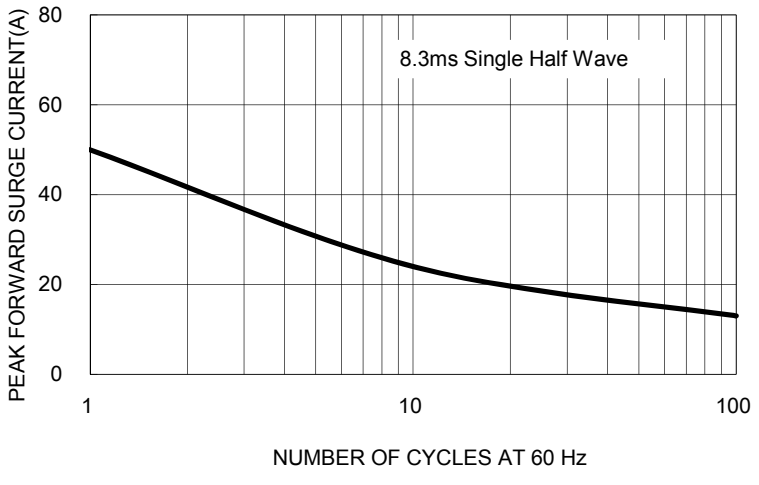


Fig. 4 TYPICAL FORWARD CHARACTERISTICS

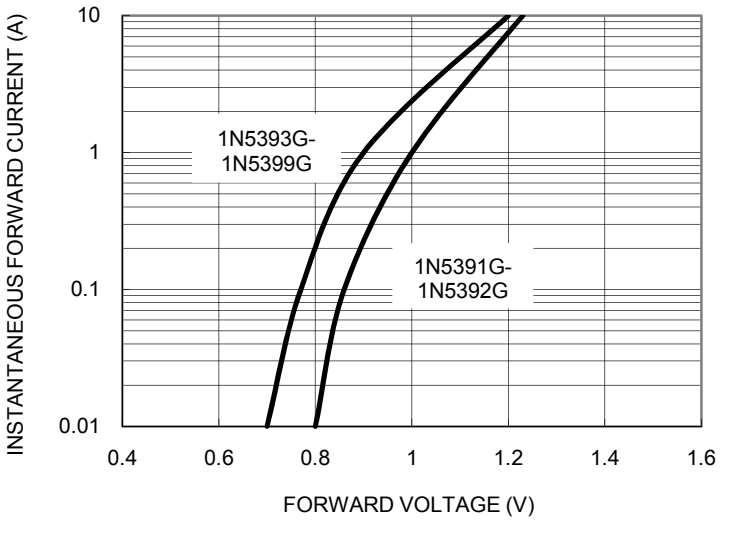
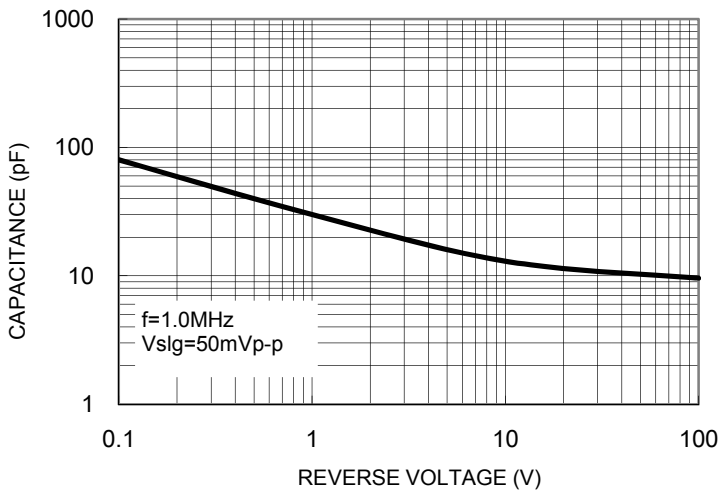
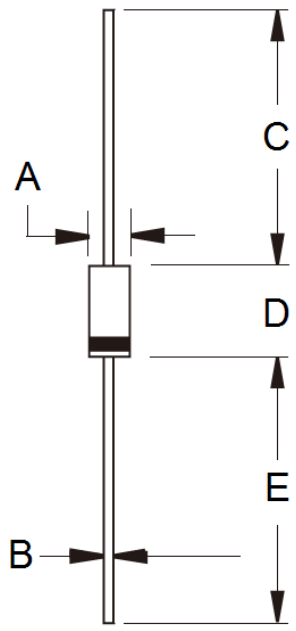


FIG. 5 TYPICAL JUNCTION CAPACITANCE



PACKAGE OUTLINE DIMENSIONS



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	2.60	3.60	0.102	0.142
B	0.70	0.90	0.028	0.035
C	25.40	-	1.000	-
D	5.80	7.60	0.228	0.299
E	25.40	-	1.000	-

MARKING DIAGRAM

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

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