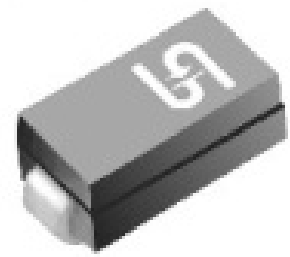


- Ultrafast recovery time for high efficiency
- Built-in strain relief
- Moisture sensitivity level: level 1, per J-STD-020
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21 definition



DO-214AC (SMA)

MECHANICAL DATA

Case: DO-214AC (SMA)

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

Polarity: Indicated by cathode band

Weight: 0.06 g (approximately)

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

PARAMETER	SYMBOL	US 1A	US 1B	US 1D	US 1G	US 1J	US 1K
Maximum repetitive peak reverse voltage	V _{RRM}	50	100	200	400	600	800
Maximum RMS voltage	V _{RMS}	35	70	140	280	420	560
Maximum DC blocking voltage	V _{DC}	50	100	200	400	600	800
Maximum average forward rectified current	I _{F(AV)}	1					
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I _{FSM}	30					
Maximum instantaneous forward voltage (Note 1) @ 1 A	V _F	1.0				1.7	
Maximum reverse current @ rated VR T _J =25 °C T _J =125 °C	I _R	5				150	
Maximum reverse recovery time (Note 2)	T _{rr}	50				75	
Typical junction capacitance (Note 3)	C _j	15				10	
Typical thermal resistance	R _{θjL} R _{θjA}	27				75	
Operating junction temperature range	T _J	- 55 to +150					
Storage temperature range	T _{STG}	- 55 to +150					

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

Note 2: Reverse Recovery Test Conditions: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A

Note 3: Measured at 1 MHz and Applied Reverse Voltage of 4.0V D.C.

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US1x (Note 1)	Prefix "H"	F3	Suffix "G"	Folded SMA	1,800 / 7"
		F2		Folded SMA	7,500 / 13"
		F4		Folded SMA	7,500 / 13"
		N/A		E3	Clip SMA
	E2			Clip SMA	7,500 / 13"

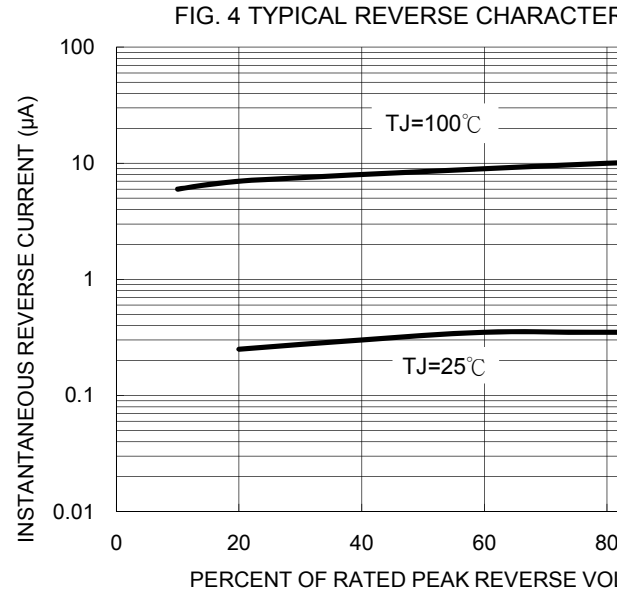
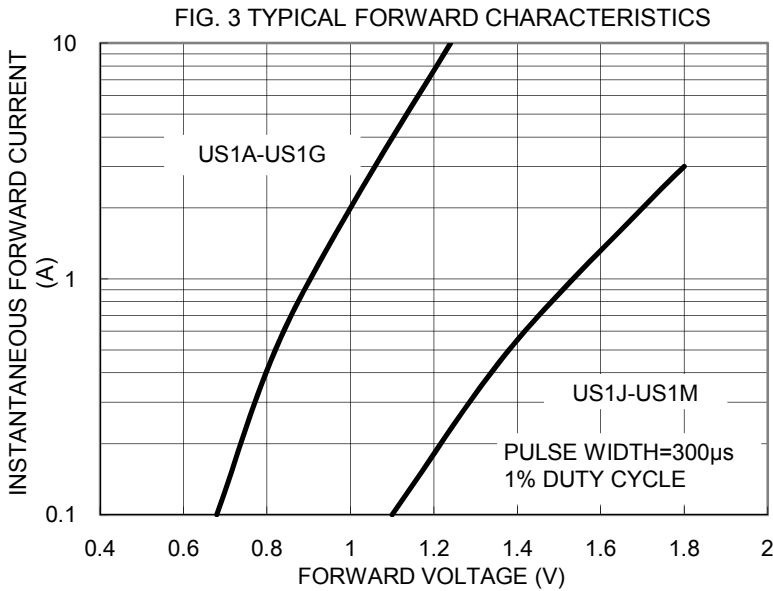
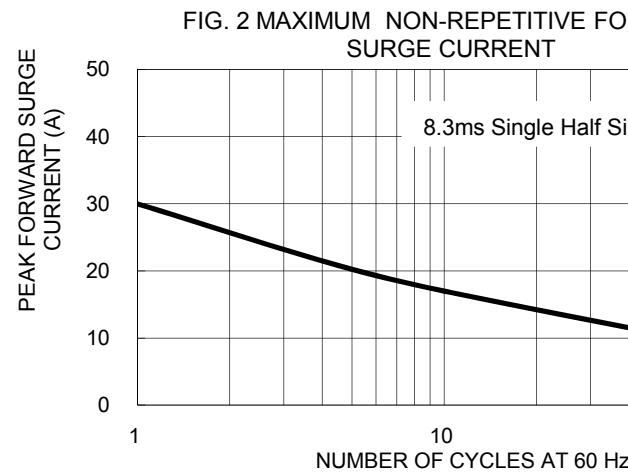
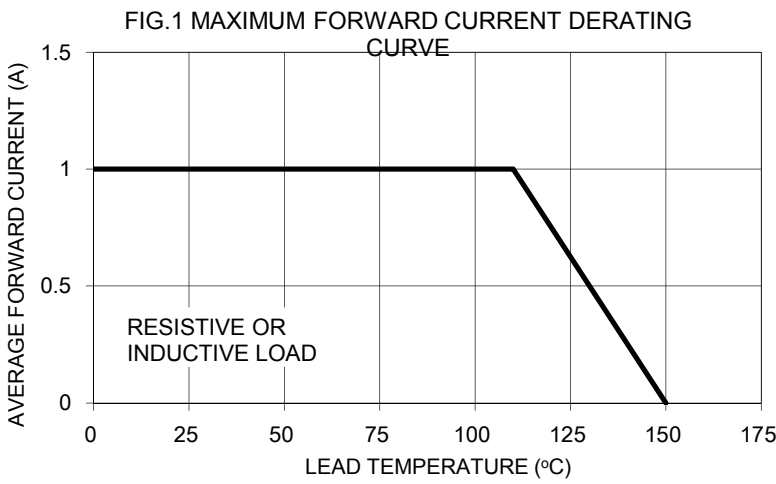
Note 1: "x" defines voltage from 50V (US1A) to 1000V (US1M)

EXAMPLE

PREFERRED P/N	PART NO.	AEC-Q101 QUALIFIED	PACKING CODE	GREEN COMPOUND CODE	DESIGNATION
US1M R3	US1M		R3		
US1M R3G	US1M		R3	G	Green
US1MHR3	US1M	H	R3		AEC-Q101

RATINGS AND CHARACTERISTICS CURVES

(TA=25°C unless otherwise noted)



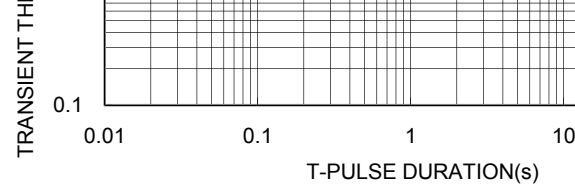
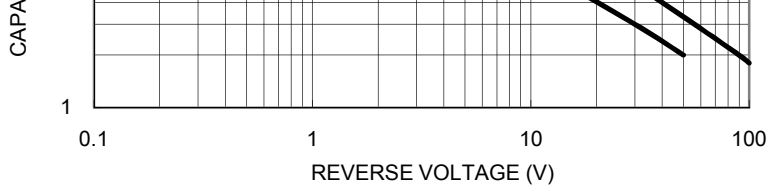
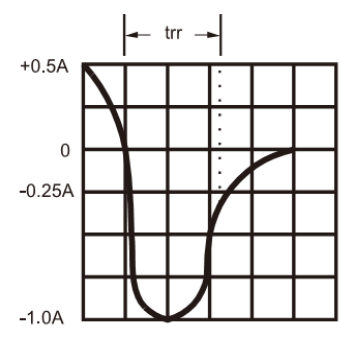
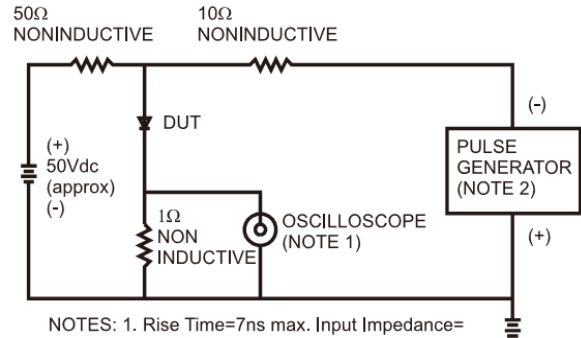
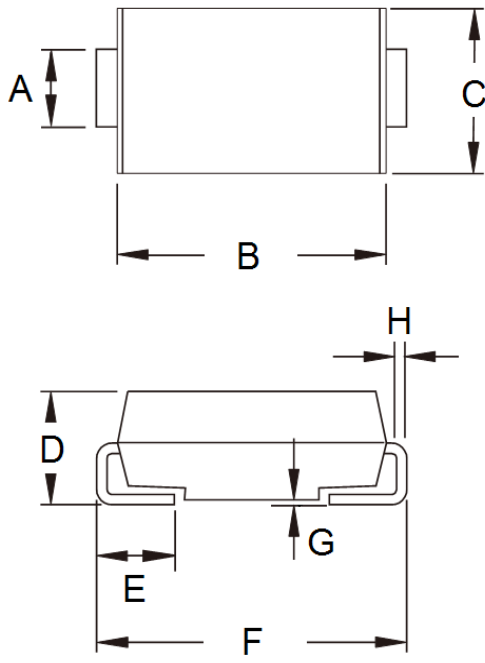


FIG.7- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM



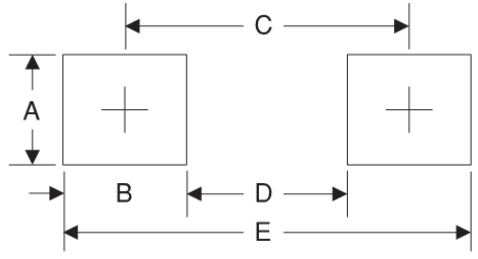
NOTES: 1. Rise Time=7ns max. Input Impedance= 1 megohm 22pf
 2. Rise Time=10ns max. Source Impedance= 50 ohms

PACKAGE OUTLINE DIMENSIONS



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	1.27	1.58	0.050	0.062
B	4.06	4.60	0.160	0.181
C	2.29	2.83	0.090	0.111
D	1.99	2.50	0.078	0.098
E	0.90	1.41	0.035	0.056
F	4.95	5.33	0.195	0.210
G	0.10	0.20	0.004	0.008
H	0.15	0.31	0.006	0.012

SUGGESTED PAD LAYOUT



Symbol	Unit (mm)	Unit (inch)
A	1.68	0.066
B	1.52	0.060
C	3.93	0.155
D	2.41	0.095
E	5.45	0.215

MARKING DIAGRAM



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

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