

- 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



## 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)

## DO-214AC (SMA)

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS ( $T_A=25^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	ES 1A	ES 1B	ES 1C	ES 1D	ES 1F	ES 1G
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	150	200	300	400
Maximum RMS voltage	$V_{RMS}$	35	70	105	140	210	280
Maximum DC blocking voltage	$V_{DC}$	50	100	150	200	300	400
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	$V_F$	0.95				1.3	
Maximum reverse current @ rated VR $T_J=25^\circ\text{C}$ $T_J=100^\circ\text{C}$	$I_R$	5 100					
Maximum reverse recovery time (Note 2)	$T_{rr}$	35					
Typical junction capacitance (Note 3)	$C_j$	16				18	
Typical thermal resistance	$R_{\theta JL}$ $R_{\theta JA}$	35 85					
Operating junction temperature range	$T_J$	- 55 to +150					
Storage temperature range	$T_{STG}$	- 55 to +150					

Note 1: Pulse test with  $PW=300\mu\text{s}$ , 1% duty cycle

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

Note 3: Measured at 1 MHz and Applied  $V_R=4.0$  Volts

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ES1x (Note 1)	Prefix "H"	F3	Suffix "G"	Folded SMA	1,800 / 7" Pla
		F2		Folded SMA	7,500 / 13" Pa
		F4		Folded SMA	7,500 / 13" Pla
	N/A	E3		Clip SMA	1,800 / 7" Pla
		E2		Clip SMA	7,500 / 13" Pla

Note 1: "x" defines voltage from 50V (ES1A) to 600V (ES1J)

### EXAMPLE

PREFERRED P/N	PART NO.	AEC-Q101 QUALIFIED	PACKING CODE	GREEN COMPOUND CODE	DESCR
ES1J R3	ES1J		R3		
ES1J R3G	ES1J		R3	G	Green c
ES1JHR3	ES1J	H	R3		AEC-Q10

### RATINGS AND CHARACTERISTICS CURVES

(TA=25°C unless otherwise noted)

FIG. 1 MAXIMUM FORWARD CURRENT DERATING CURVE

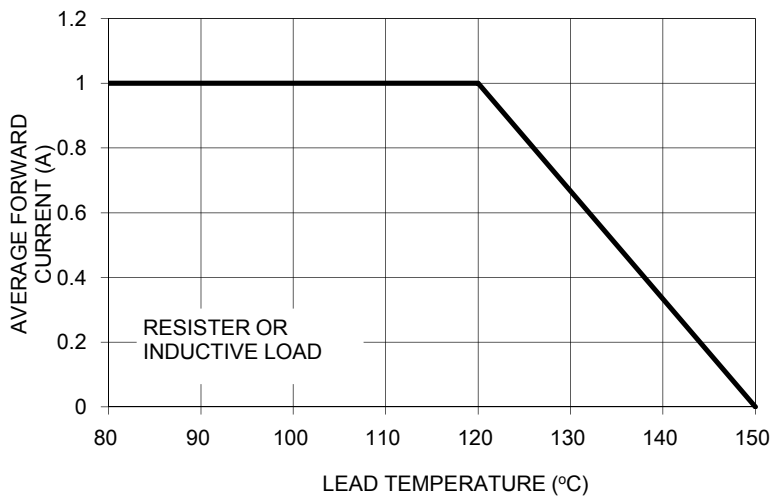


FIG. 2 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

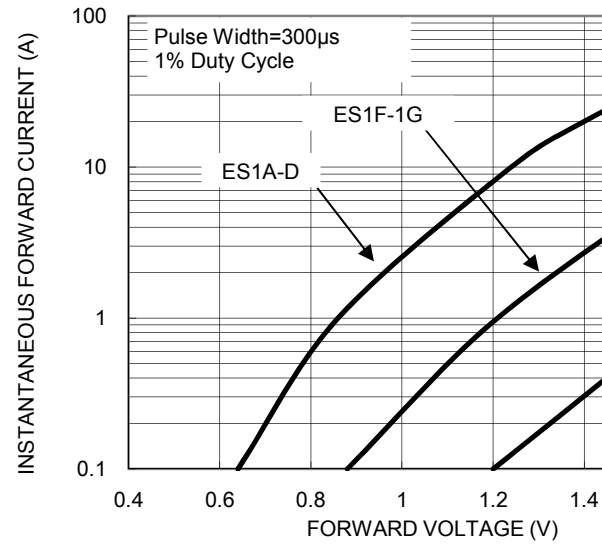


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD PEAK SURGE CURRENT

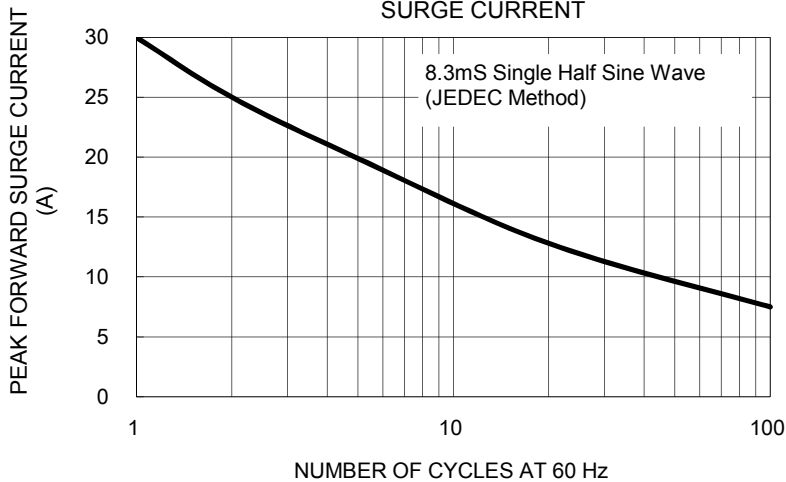
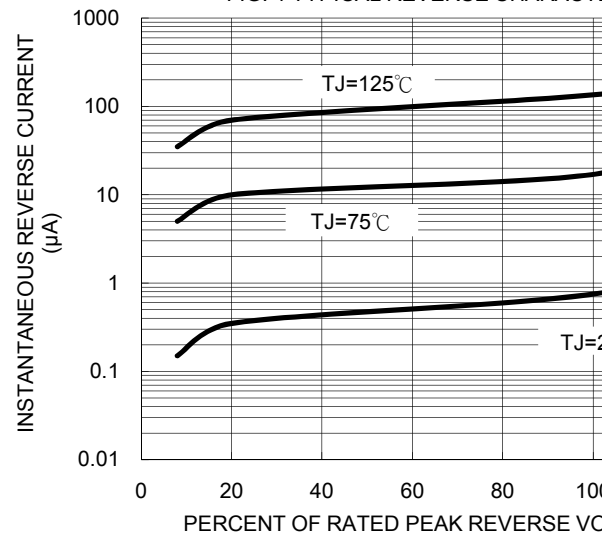
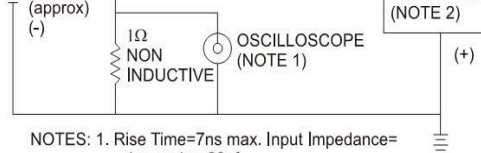
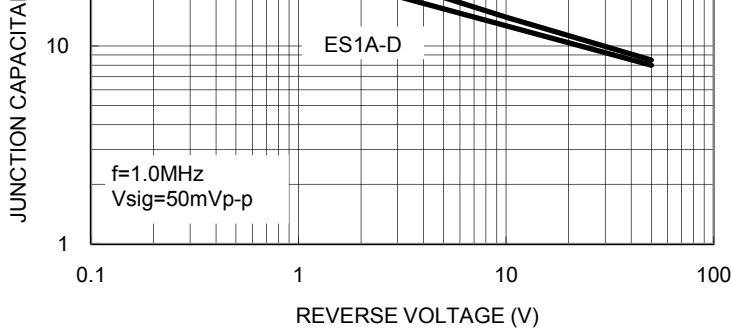


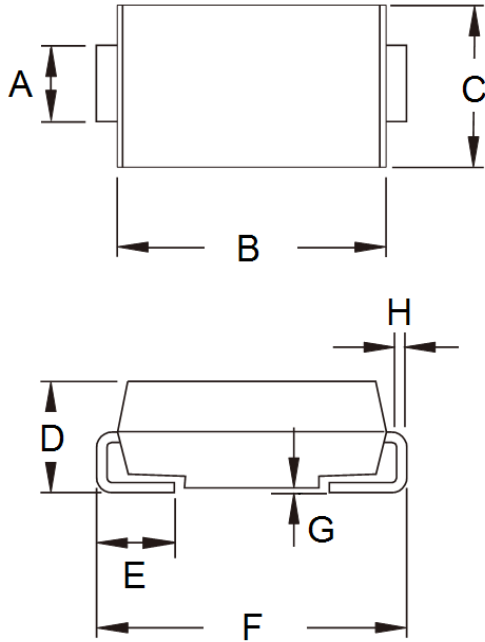
FIG. 4 TYPICAL REVERSE CHARACTERISTICS





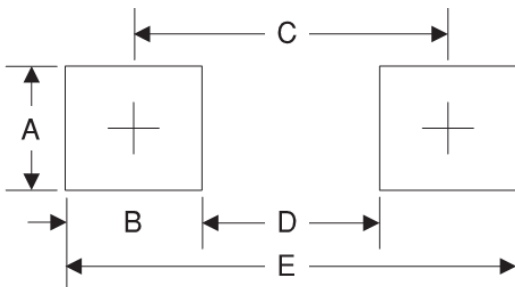
NOTES: 1. Rise Time=7ns max. Input Impedance=1 megohm 22pf  
2. Rise Time=10ns max. Source Impedance=50 ohms

## 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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