

- Low profile package
- Ultra fast recovery time for high efficiency
- Moisture sensitivity: 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 - halogen-free, RoHS compliant

**Terminal :** Matte tin plated leads, solderable per JESD22-B102  
 Meet JESD 201 class 1A whisker test

**Polarity :** Indicated by cathode band

**Weight :** 0.06 gram (approximately)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T <sub>A</sub> =25°C unless otherwise noted)				
PARAMETER	SYMBOL	ESH1B	ESH1C	ESH1D
Maximum repetitive peak reverse voltage	V <sub>RRM</sub>	100	150	150
Maximum RMS voltage	V <sub>RMS</sub>	70	105	105
Maximum DC blocking voltage	V <sub>DC</sub>	100	150	150
Maximum average forward rectified current	I <sub>F(AV)</sub>	1		
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I <sub>FSM</sub>	30		
Maximum instantaneous forward voltage (Note 1) @ 1 A	V <sub>F</sub>	0.90		
Maximum reverse current @ rated VR T <sub>J</sub> =25 °C T <sub>J</sub> =125 °C	I <sub>R</sub>	1 25		
Maximum reverse recovery time (Note 2)	T <sub>rr</sub>	15		
Typical junction capacitance (Note 3)	C <sub>j</sub>	16		
Typical thermal resistance	R <sub>θJL</sub> R <sub>θJA</sub>	35 85		
Operating junction temperature range	T <sub>J</sub>	- 55 to + 175		
Storage temperature range	T <sub>STG</sub>	- 55 to + 175		

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

Note 2: Reverse Recovery Test Conditions: I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>RR</sub>=0.25A

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

ESH1x (Note 1)	M2	Suffix "G"	SMA	7500 / 13" Plastic reel
	F3		Folded SMA	1800 / 7" Plastic reel
	F2		Folded SMA	7500 / 13" Paper reel
	F4		Folded SMA	7500 / 13" Plastic reel
	E3		Clip SMA	1800 / 7" Plastic reel
	E2		Clip SMA	7500 / 13" Plastic reel

Note 1: "x" defines voltage from 100V (ESH1B) to 200V (ESH1D)

### EXAMPLE

PREFERRED P/N	PART NO.	PACKING CODE	GREEN COMPOUND CODE	DESCRIPTION
ESH1D R3	ESH1D	R3		
ESH1D R3G	ESH1D	R3	G	Green compound

### RATINGS AND CHARACTERISTICS CURVES

(TA=25°C unless otherwise noted)

FIG. 1 FORWARD CURRENT DERATING CURVE

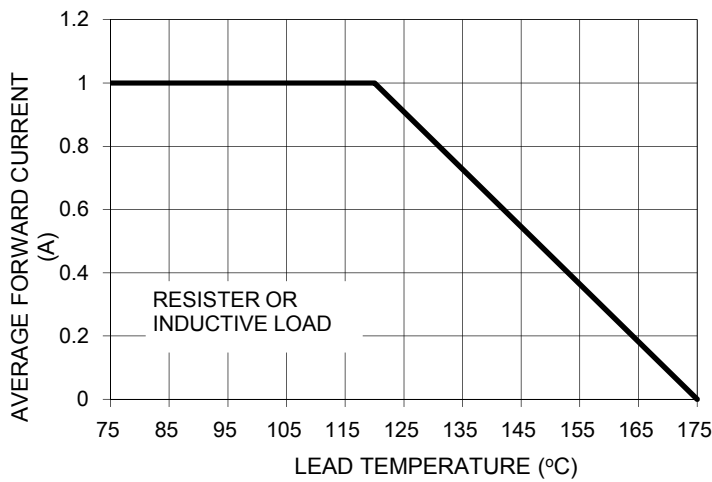


FIG. 3 TYPICAL FORWARD CHARACTERISTICS

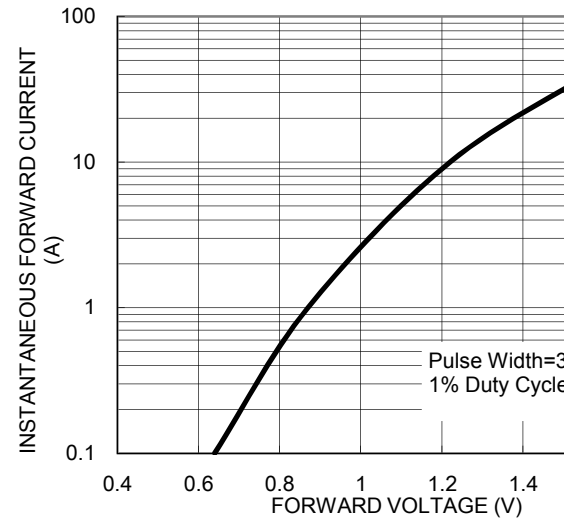


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

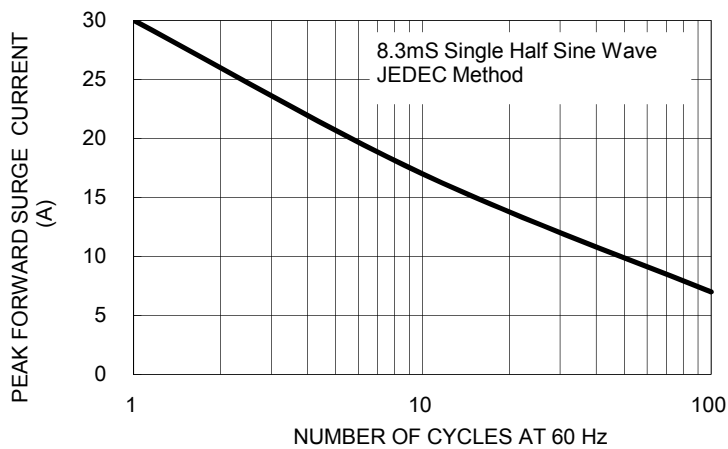
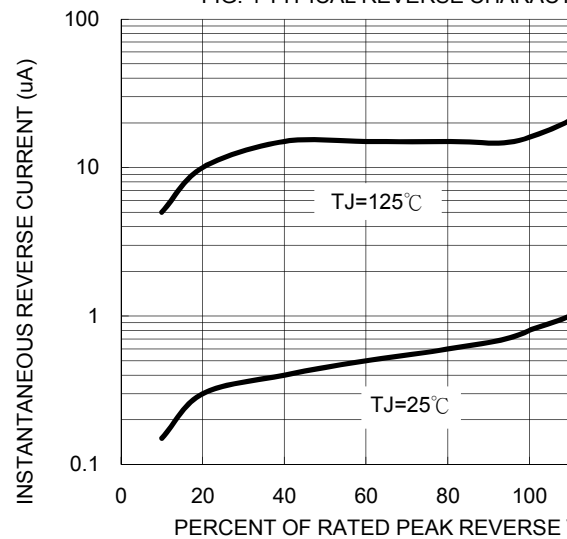
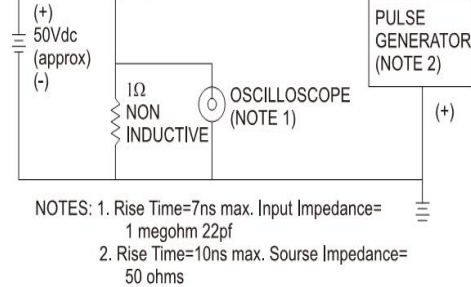
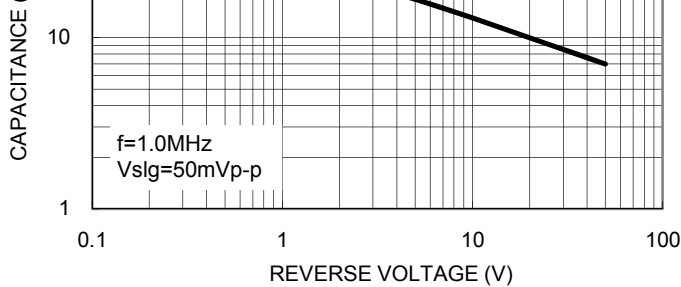
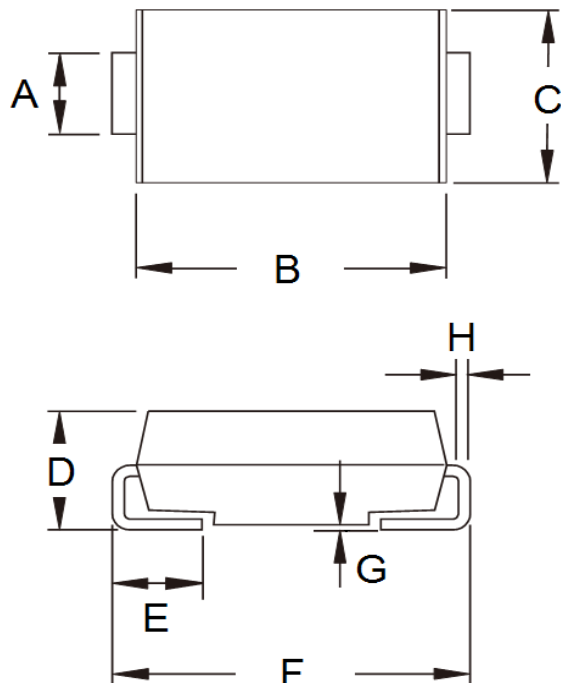


FIG. 4 TYPICAL REVERSE CHARACTERISTICS



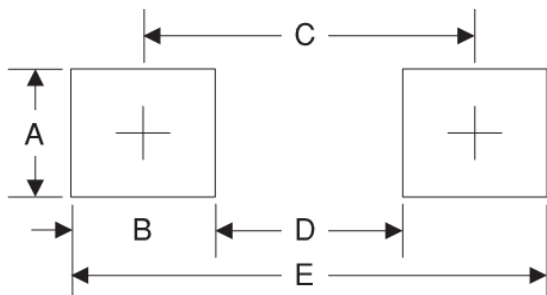


PACKAGE OUTLINE DIMENSIONS



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)
A	1.68
B	1.52
C	3.93
D	2.41
E	5.45

MARKING DIAGRAM



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