

- ✧ Built-in strain relief
- ✧ Ideal for automated placement
- ✧ Easy pick and place
- ✧ Super fast recovery time for high efficiency
- ✧ Glass passivated chip junction
- ✧ High temperature soldering:  
260°C/10 seconds at terminals
- ✧ Meet MSL level 1, per J-STD-020D  
lead free, maximum peak of 260°C
- ✧ Plastic material used carries Underwriters  
Laboratory Classification 94V-0
- ✧ Green compound with suffix "G" on packing  
code & prefix "G" on datecode



## Mechanical Data

- ✧ Cases: Molded plastic
- ✧ Terminals: Pure tin plated, lead free
- ✧ Polarity: Indicated by cathode band
- ✧ Packing: 12mm tape per EIA STD RS-481
- ✧ Weight: 0.064 grams

## Ordering Information (example)

Part No.	Package	Packing	Packing code	Packing code (Green)
ES2AA	SMA	1.8K / 7" REEL	R3	R3G

## Maximum Ratings and Electrical Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.

Parameter	Symbol	ES 2AA	ES 2BA	ES 2CA	ES 2DA	ES 2FA	ES 2GA	ES 2HA	
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	150	200	300	400	500	
Maximum RMS Voltage	$V_{RMS}$	35	70	105	140	210	280	350	
Maximum DC Blocking Voltage	$V_{DC}$	50	100	150	200	300	400	500	
Maximum Average Forward Rectified Current	$I_{F(AV)}$	2							
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	$I_{FSM}$	50							
Maximum Instantaneous Forward Voltage (Note 1) @ 2 A	$V_F$	0.95				1.3			
Maximum DC Reverse Current @ $T_A=25\text{ }^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_A=125\text{ }^\circ\text{C}$	$I_R$	10					350		
Maximum Reverse Recovery Time (Note 2)	$T_{rr}$	35							
Typical Junction Capacitance (Note 3)	$C_j$	25				20			
Maximum Thermal Resistance	$R_{\theta JA}$ $R_{\theta JL}$	75					20		
Operating Temperature Range	$T_J$	- 55 to + 150							
Storage Temperature Range	$T_{STG}$	- 55 to + 150							

Note 1: Pulse Test with PW=300 usec, 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  $V_R=4.0$  Volts

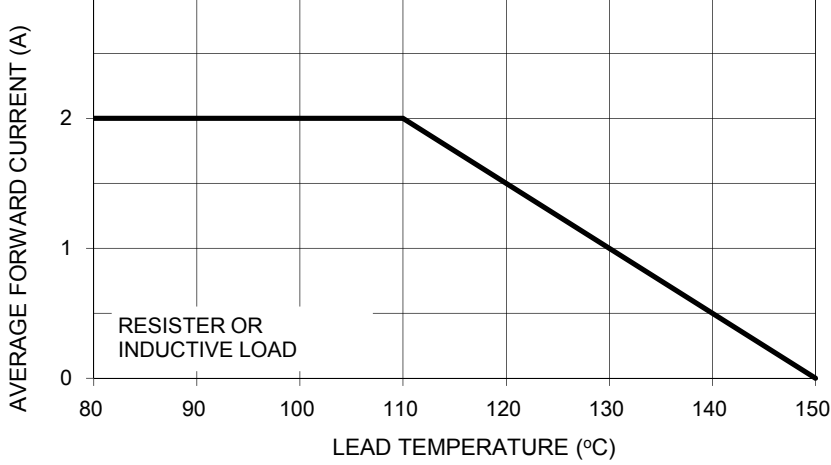


FIG. 3- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

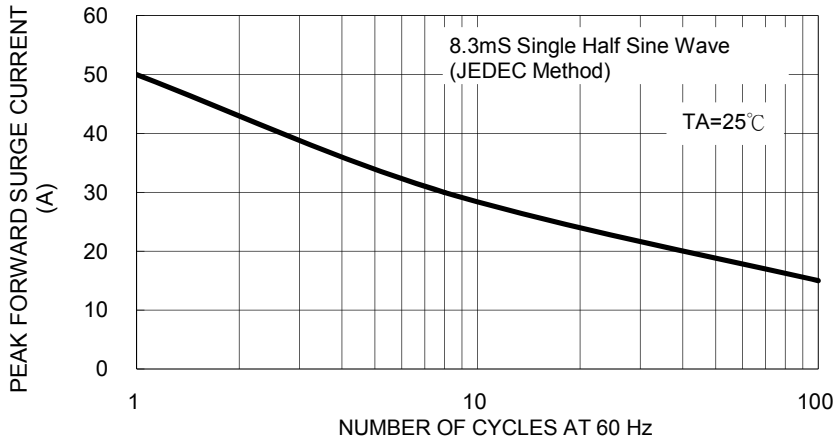


FIG. 4- TYPICAL JUNCTION CAPACITANCE

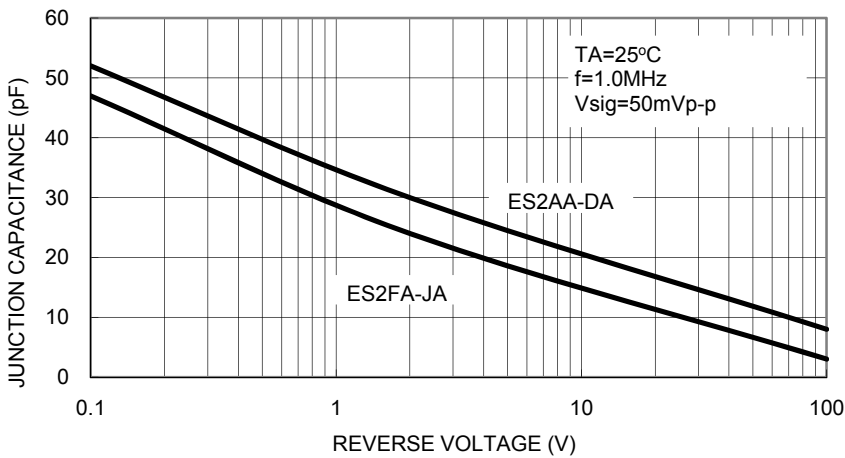


FIG. 6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

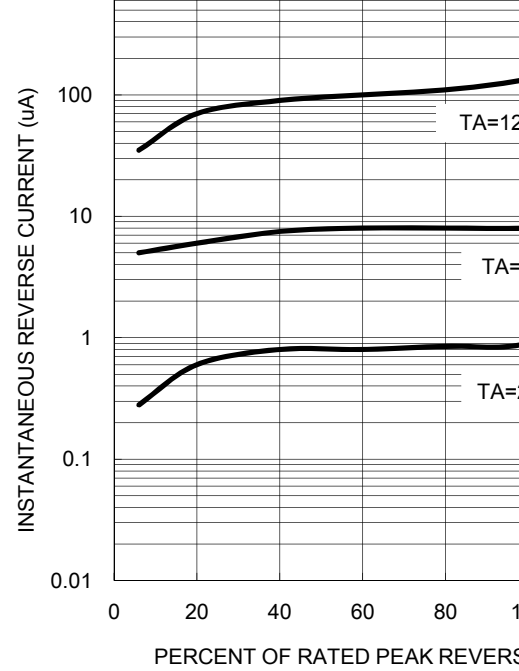
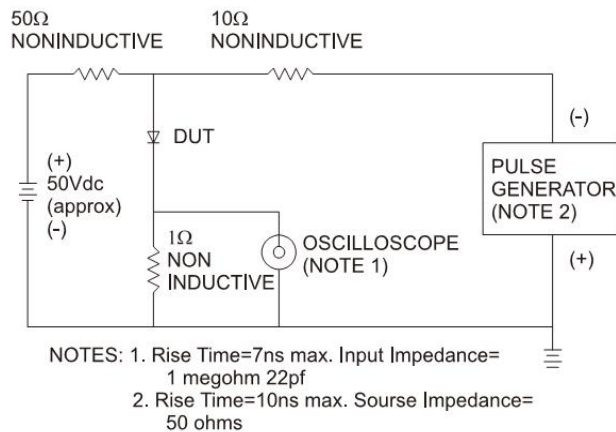
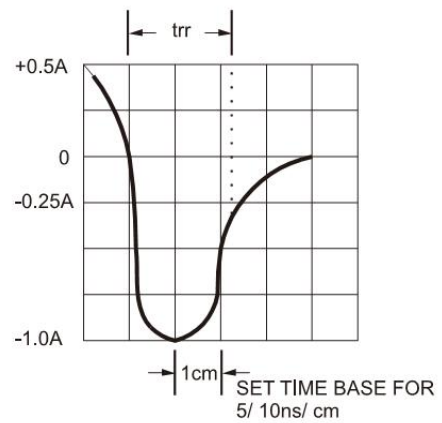
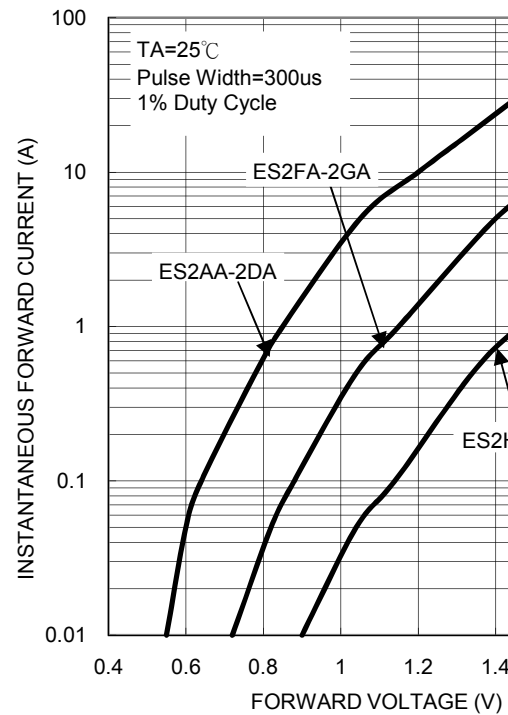


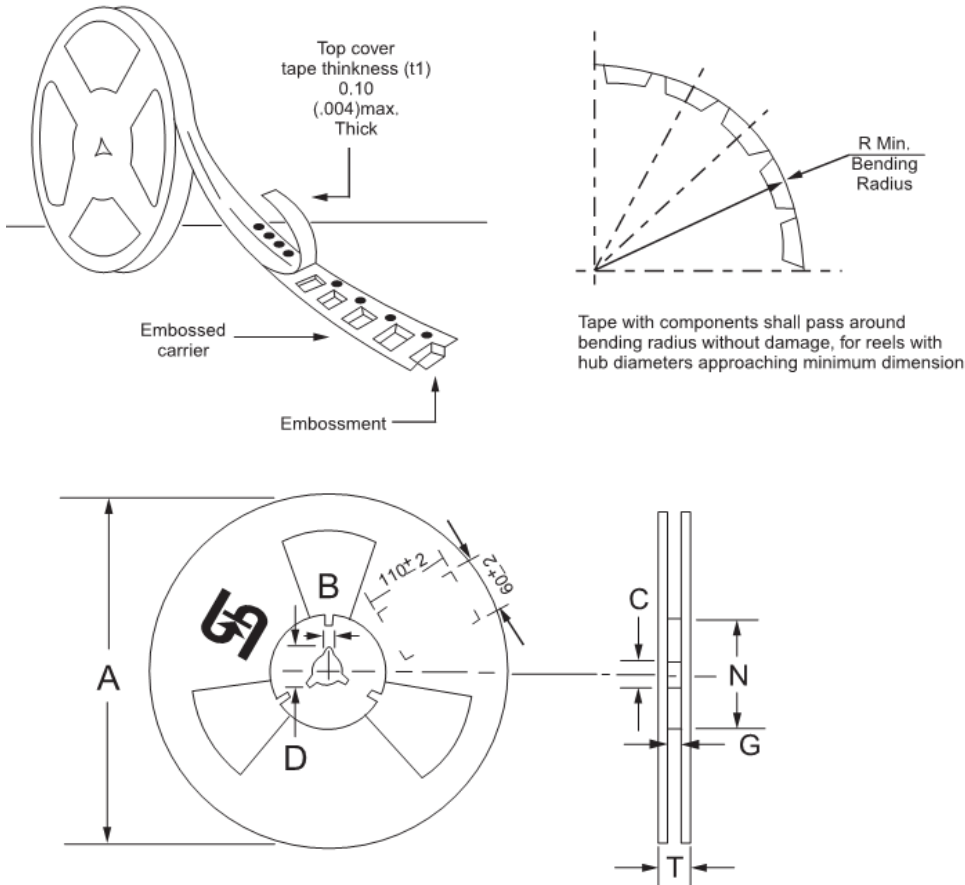
FIG. 5- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



ES2XA (Note)	SMA	7.5K / 13" REEL	R2	R2G
	SMA	7.5K / 13" Plastic REEL	M2	M2G
	Folded SMA	1.8K / 7" REEL	F3	F3G
	Folded SMA	7.5K / 13" REEL	F2	F2G
	Folded SMA	7.5K / 13" Plastic REEL	F4	F4G
	C SMA	1.8K / 7" REEL	E3	E3G
	C SMA	7.5K / 13" REEL	E2	E2G

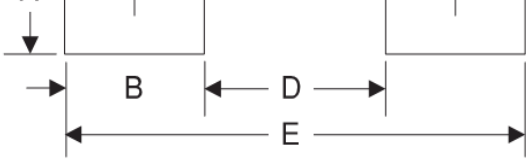
Note: "x" is Device Code from "A" thru "J".

### Tape & Reel specification



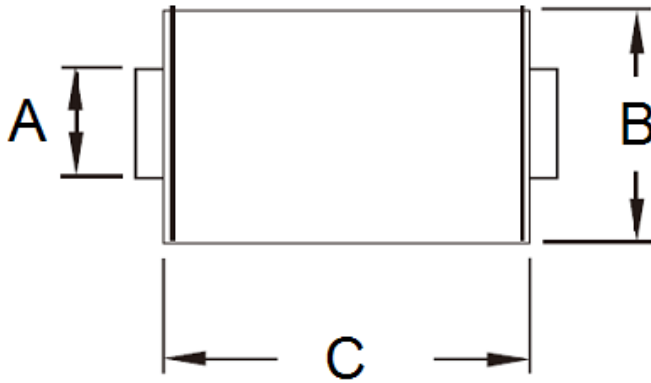
Reel Size	Tape Size	A	B	C	D	N	G	T
		±2.0	±0.4	+0.5;-0.2	min	±1.0	+0.8;-0	max
7"	12mm	178	1.9	13	21	62	12.2	14.6
Reel Size	Tape Size	A	B	C	D	N	G	T
		max	±0.5	±0.5	min	±0.5	+2.0;-0	max
13"	12mm	330	2	13	20.2	75	12.4	18.4

Unit (mm)

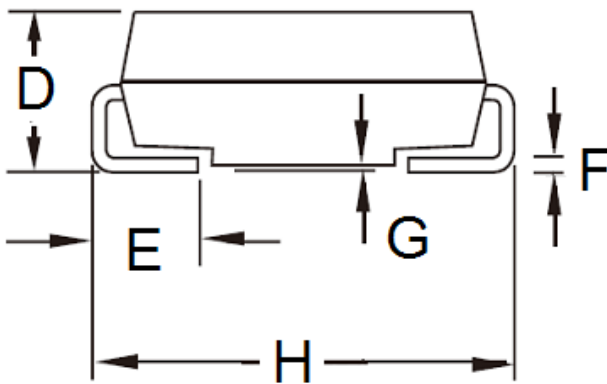


A	1.78
B	1.51
C	3.92
D	2.41
E	4.43

**Package Outline Dimensions**



DIM.	Unit(mm)		Unit(inch)	
	Min	Max	Min	Max
A	1.27	1.58	0.050	0.062
B	2.29	2.83	0.090	0.112
C	4.06	4.60	0.160	0.181
D	1.99	2.50	0.078	0.098
E	0.90	1.41	0.035	0.055
F	0.15	0.31	0.006	0.012
G	0.10	0.20	0.004	0.008
H	4.95	5.33	0.195	0.210



**Marking Diagram**



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