

Features

- ✧ Very low profile - typical height of 0.68mm
- ✧ Ideal for automated placement
- ✧ Low forward voltage drop. Low power loss.
- ✧ High efficiency
- ✧ Meet MSL level 1, per J-STD-020D, lead free maximum peak of 260°C
- ✧ Solder dip 265°C max. 10 s, per JESD 22-A111
- ✧ Compliant to RoHS directive 2002/95/EC and in accordance to WEEE 2002/96/EC
- ✧ Halogen-free according to IEC 61249-2-21 definition



Mechanical Data

- ✧ Case: Micro SMA
- ✧ Molding Compound meet UL 94V-0 rate flame flammability rating.
- ✧ Terminals: Matte tin plated leads, solderable per J-STD-002B, and JESD22-B102D
- ✧ Polarity: Indicated by Cathode Band
- ✧ Packaging: 8 mm tape per EIA Std RS-481
- ✧ Weight: 0.006 grams

Ordering Information (example)

Part No.	Package	Packing	Green Compound Packing code
SS22M	Micro-SMA	3K / 7" REEL	RSG

Maximum Ratings and Electrical Characteri:

Rating at 25 °C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

Type Number	Symbol	SS22M	SS23M	SS24M	Units
Device Marking Code		D	E	F	
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	20	30	40	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	2			A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load	I_{FSM}	25			A
Maximum Instantaneous Forward Voltage (Note 1) @ 1.0A / $T_A=25^\circ\text{C}$ @ 2.0A / $T_A=25^\circ\text{C}$ @ 1.0A / $T_A=125^\circ\text{C}$ @ 2.0A / $T_A=125^\circ\text{C}$	V_F	TYP.	MAX.		V
		0.45	-		
		0.53	0.60		
		0.37	-		
Maximum Reverse Current @ $T_A=25^\circ\text{C}$ @ $T_A=125^\circ\text{C}$	I_R	TYP.	MAX.		uA mA
		6 4	150 15		
Typical Junction Capacitance (Note 2)	C_j	35			pF
Typical Thermal Resistance	$R_{\theta JA}$	105			$^\circ\text{C/W}$
	$R_{\theta JL}$	15			
	$R_{\theta JC}$	20			
Operating Temperature Range	T_J	-55 to + 150			$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to + 150			$^\circ\text{C}$

Note1: Pulse Test with PW=300 usec, 1% Duty Cycle

Note2: Measured at 1 MHz and Applied Reverse Voltage of 4.0 V D.C.

RATINGS AND CHARACTERISTIC CURVES (SS22M THRU SS24M)

FIG. 1 MAXIMUM FORWARD CURRENT DERATING CURVE

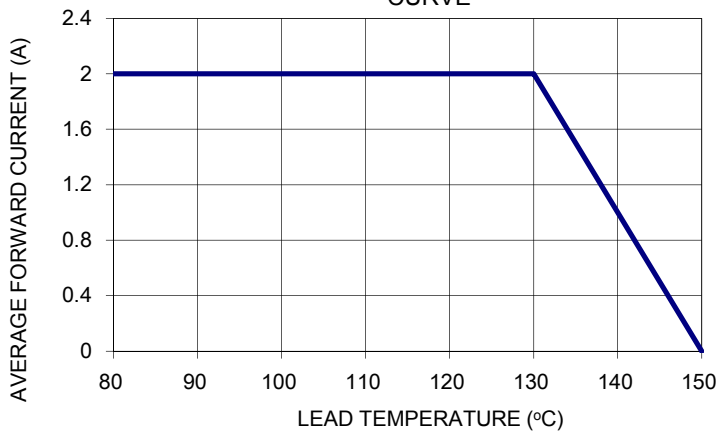


FIG. 2 MAXIMUM FORWARD SURGE CURRENT

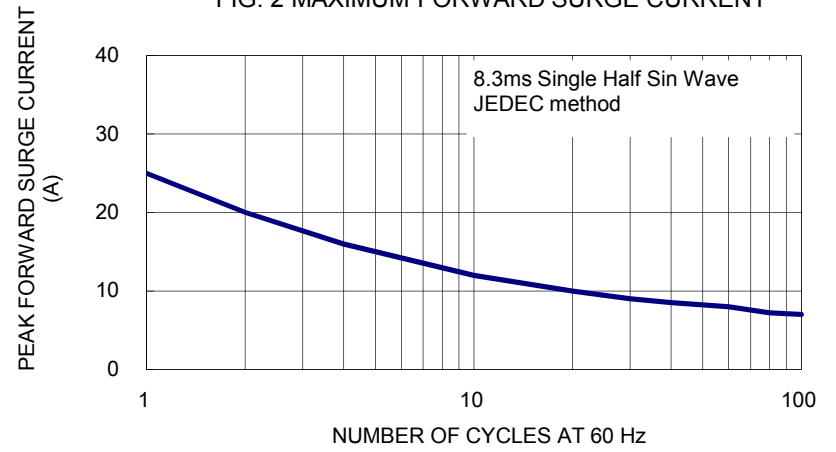


FIG. 3 TYPICAL FORWARD CHARACTERISTICS

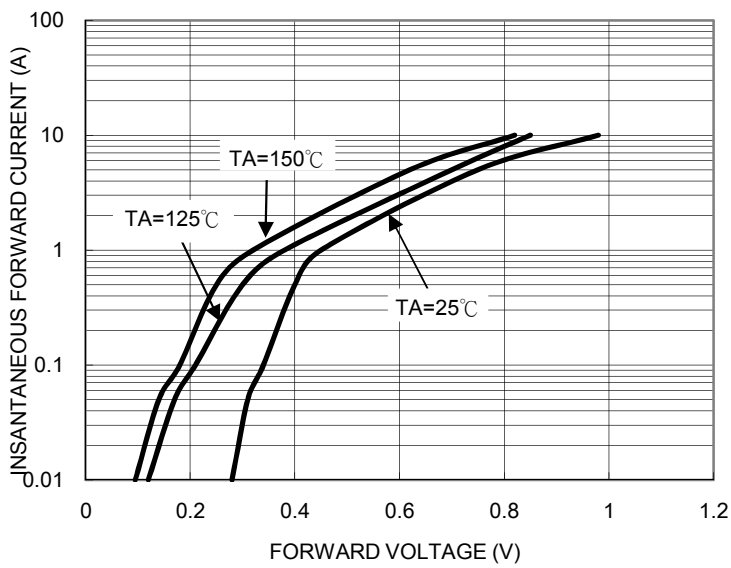


FIG. 4 TYPICAL REVERSE CHARACTERISTICS

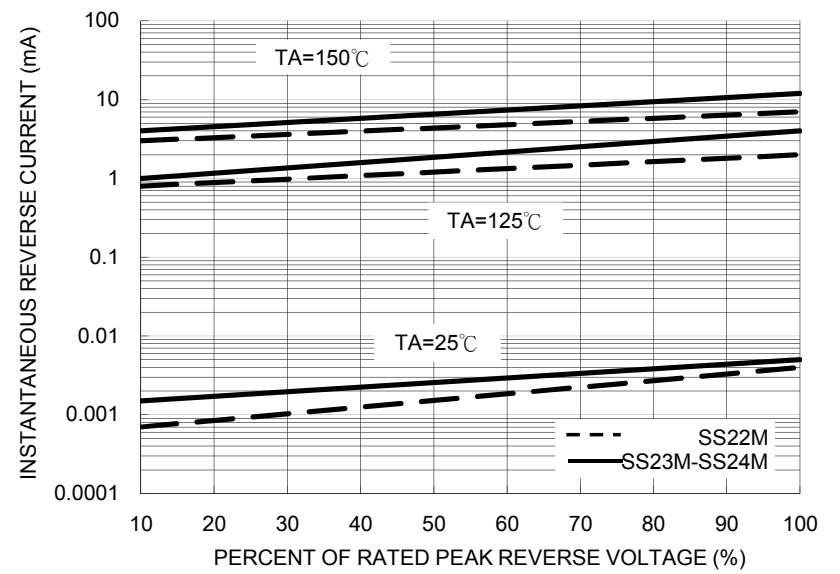


FIG. 5 TYPICAL JUNCTION CAPACITANCE

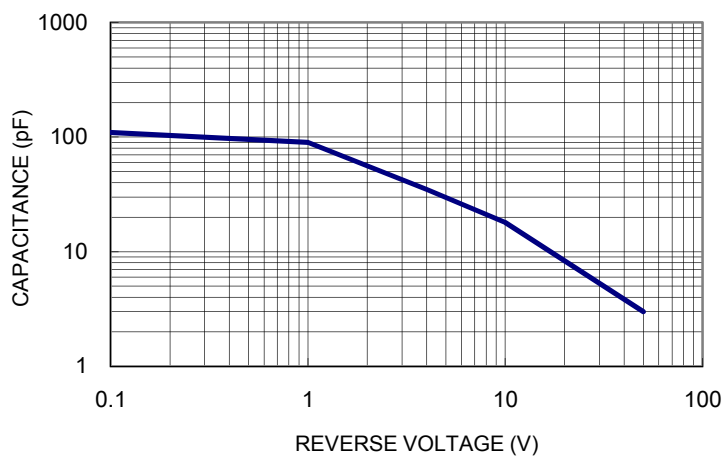
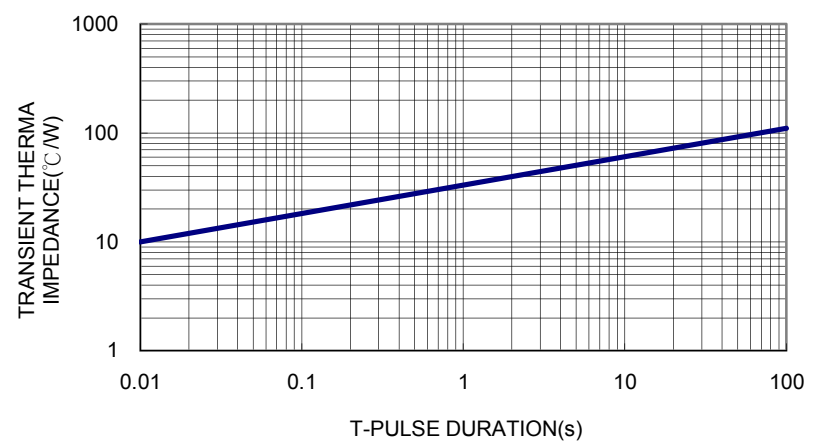


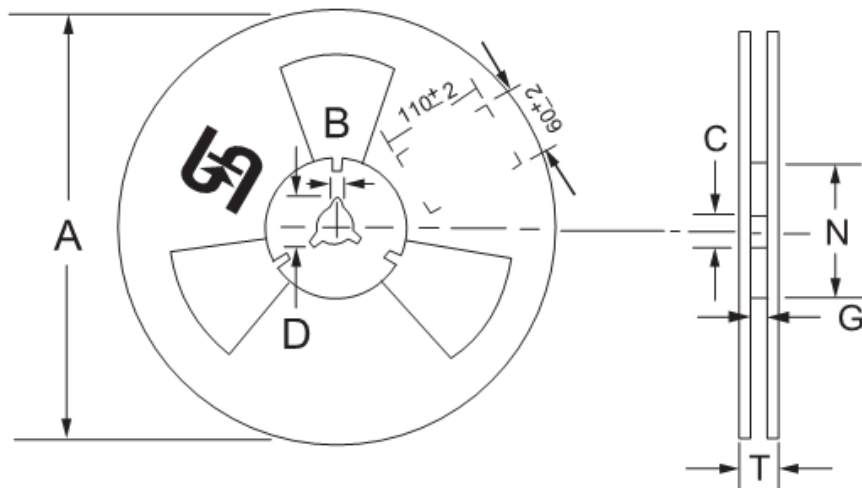
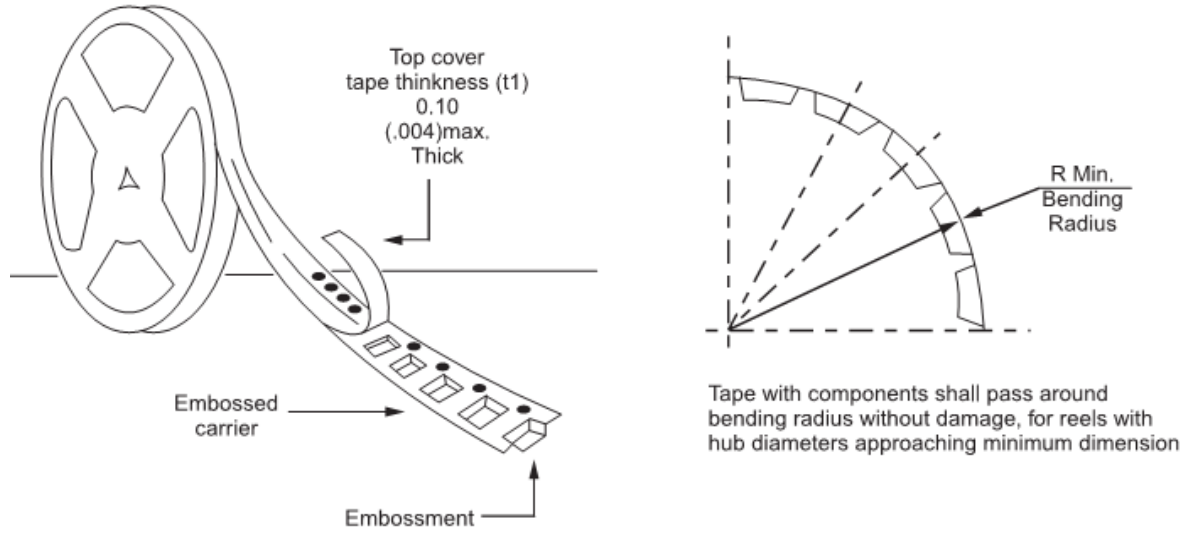
FIG. 6 TYPICAL TRANSIENT THERMAL IMPEDANCE



Ordering information

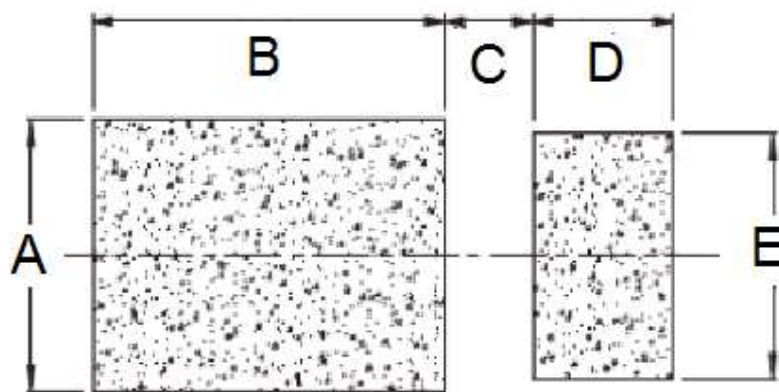
Part No.	Package	Packing	Green Compound Packing code
SS22M	Mirco-SMA	3K / 7" REEL	RSG
SS23M	Mirco-SMA	3K / 7" REEL	RSG
SS24M	Mirco-SMA	3K / 7" REEL	RSG

Tape & Reel specification



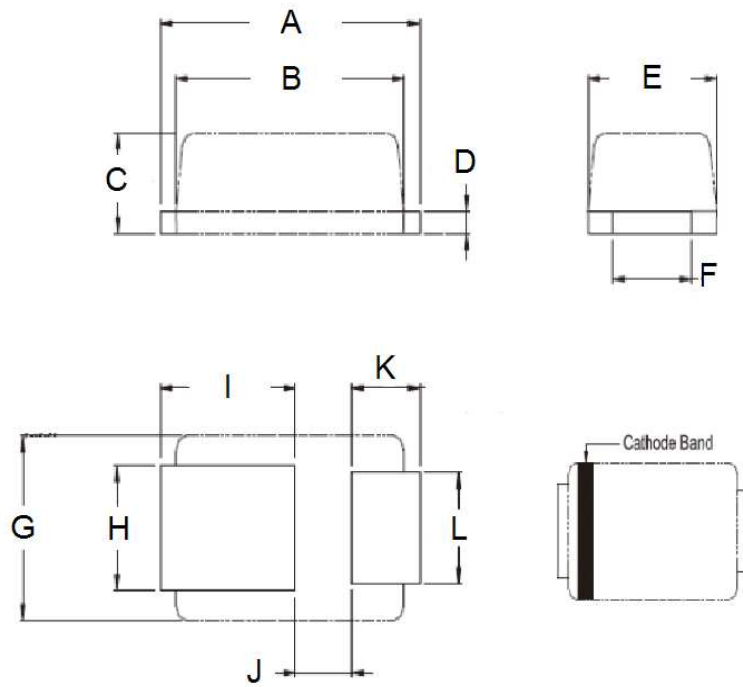
Symbol	Dimension (mm)	
A	178	±2
B	1.9	±0.4
C	13	+0.5/-0.2
D	21	MIN
N	62	±1.0
G	8.2	+0.8/-0
T	10.6	MAX

Suggested PAD Layout



Symbol	Unit(inch)	Unit(mm)
A	0.043	1.1
B	0.079	2
C	0.02	0.5
D	0.032	0.8
E	0.039	1

Package Outline Dimensions



DIM.	Unit(mm)		Unit(inch)	
	Min	Max	Min	Max
A	2.30	2.70	0.091	0.106
B	2.10	2.30	0.083	0.091
C	0.63	0.73	0.025	0.029
D	0.10	0.20	0.004	0.008
E	1.15	1.35	0.045	0.053
F	0.65	0.85	0.026	0.034
G	1.15	1.35	0.045	0.053
H	0.75	0.95	0.030	0.037
I	1.10	1.50	0.043	0.059
J	0.55	0.75	0.022	0.030
K	0.55	0.75	0.022	0.030
L	0.65	0.85	0.026	0.034

Marking Diagram



P =Device Name Code
YW =Date Code