

Features

- ✧ For surface mounted applications in order to optimize board space
- ✧ Low profile package
- ✧ Built-in strain relief
- ✧ Glass passivated junction
- ✧ High temperature soldering guaranteed: 260°C / 10 seconds at terminals
- ✧ Meet MSL level 1, per J-STD-020, LF maximum peak of 260°C
- ✧ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ✧ Green compound with suffix "G" on packing code & prefix "G" on datecode



Mechanical Data

- ✧ Case: Molded plastic over passivated junction
- ✧ Terminals: Pure tin plated, lead free, solderable per MIL-STD-750, method 2026
- ✧ Polarity: Color Band denotes positive end (cathode)
- ✧ Standard packaging: 16mm tape per EIA Std RS-481
- ✧ Weight: 0.26 gram

Ordering Information (example)

Part No.	Package	Packing	Packing code	Packing code (Green)
1SMC5352	SMC	850 / 7" REEL	R7	R7G

Maximum Ratings and Electrical Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.

Parameter	Symbol	Value	Unit
DC Power Dissipation at $T_L=75^\circ\text{C}$	P_D	5	Watts
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	55	$^\circ\text{C} / \text{W}$
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150	$^\circ\text{C}$

Maximum ratings are those values beyond which device damage can occur.

Maximum ratings applied to the device are individual stress limit values (not normal operating conditions) and are not valid simultaneously. If these limits are exceeded, device functional operation is not implied, damage may occur and reliability may be attached.

ELECTRICAL CHARACTERISTICS (TA=25°C unless otherwise noted)

Device (Note 1)	Device Marking Code	Regulator Voltage (Note 2)	Test Current	Maximum Dynamic Impedance	Maximum Reverse Current	IR Test Voltage	Maximum Regulator Current	Maximum Dynamic Knee Impedance
		Vz@Iz	Iz	Zz	IR	VR	IzM	Zzk@1mA
		V	mA	Ω	uA	V	mA	Ω
1SMC5352	352B	15	75	2.5	1.0	11.5	315	75

Notes:

1. Tolerance and type number designation the type numbers listed indicate a tolerance of 5%
2. Zener voltage (Vz) measurement
Nominal Zener voltage is measured with the device junction in thermal equilibrium with ambient temperature 25°C

RATINGS AND CHARACTERISTIC CURVES (1SMC5352)

FIG. 1 STEADY STATE POWER DERATING

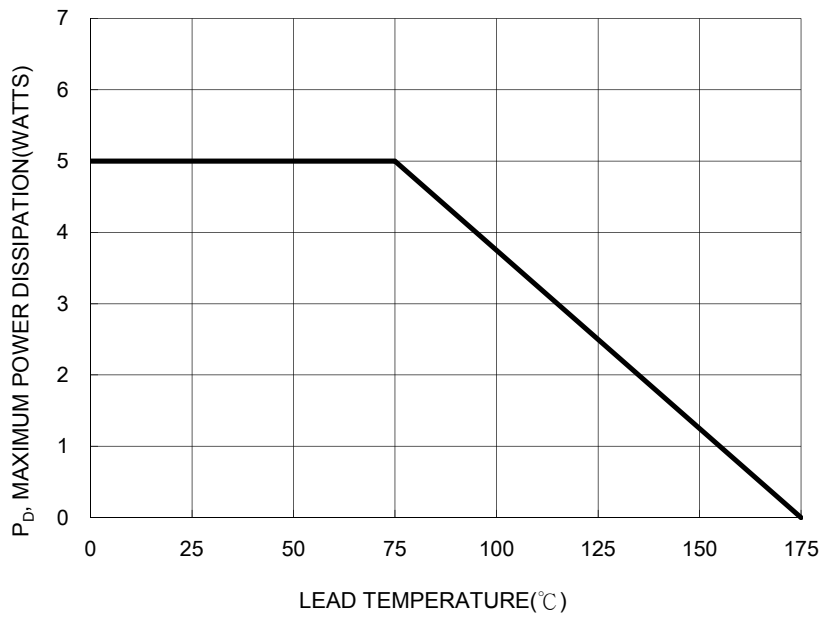


FIG. 2 EFFECT OF ZENER CURRENT

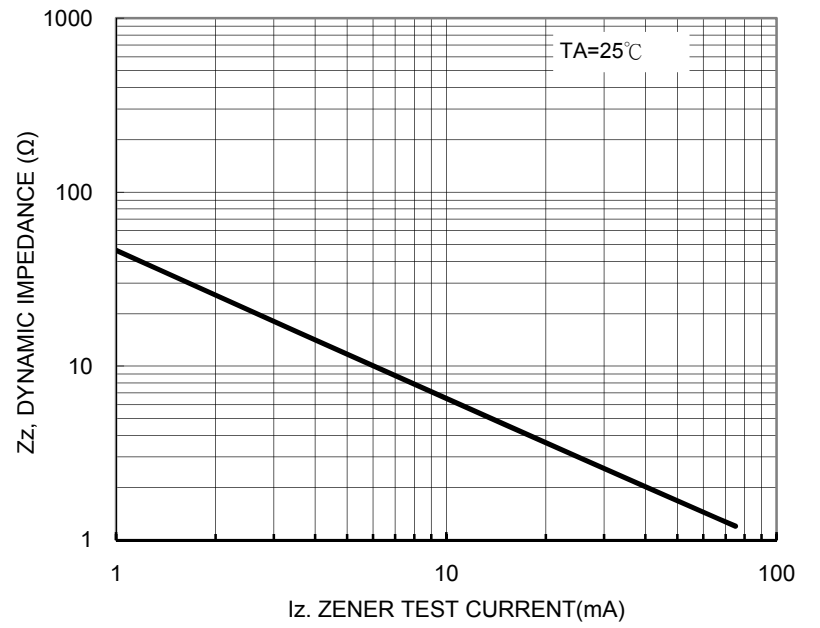
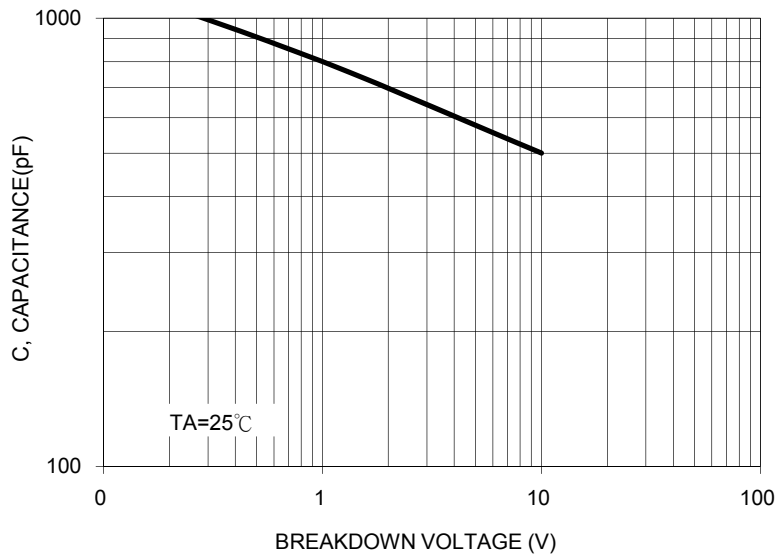


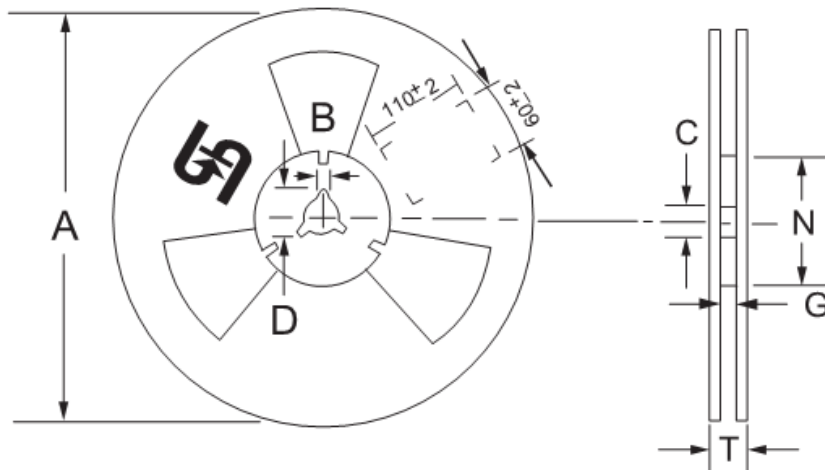
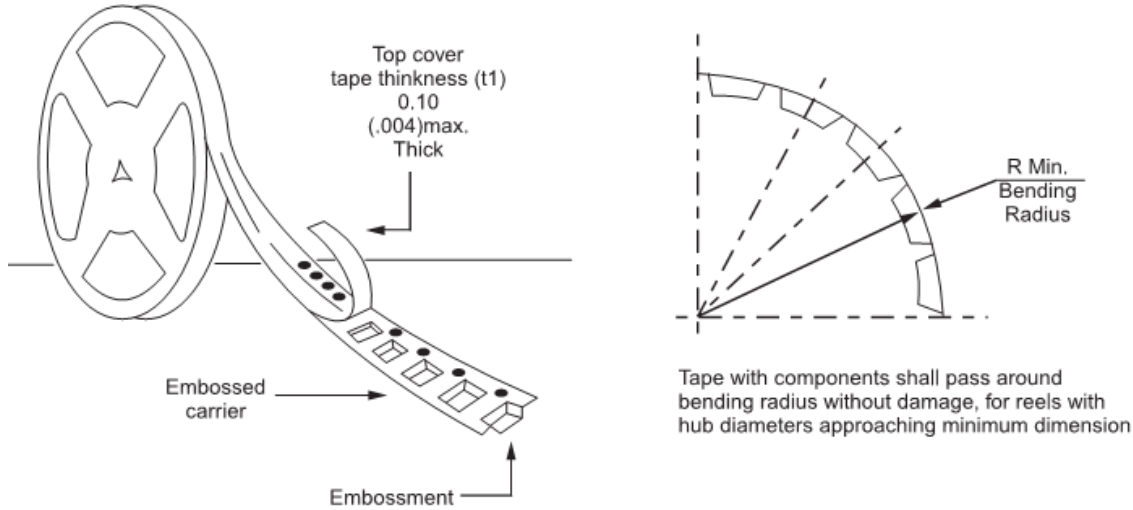
FIG.3 CAPACITANCE CURVE



Ordering information

Part No.	Package	Packing	Packing code	Packing code (Green)
1SMC5352	SMC	850 / 7" REEL	R7	R7G
	SMC	3K / 13" REEL	R6	R6G
	SMC	3K / 13" Plsatic REEL	M6	M6G

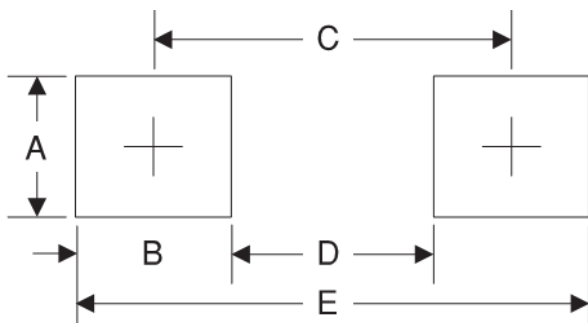
Tape & Reel specification



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"	16mm	178	1.9	13	21	62	16.2	18.6
Reel Size	Tape Size	A	B	C	D	N	G	T
		max	±0.5	±0.5	min	±0.5	+2.0;-0	max
13"	16mm	330	2	13	20.2	75	16.4	22.4

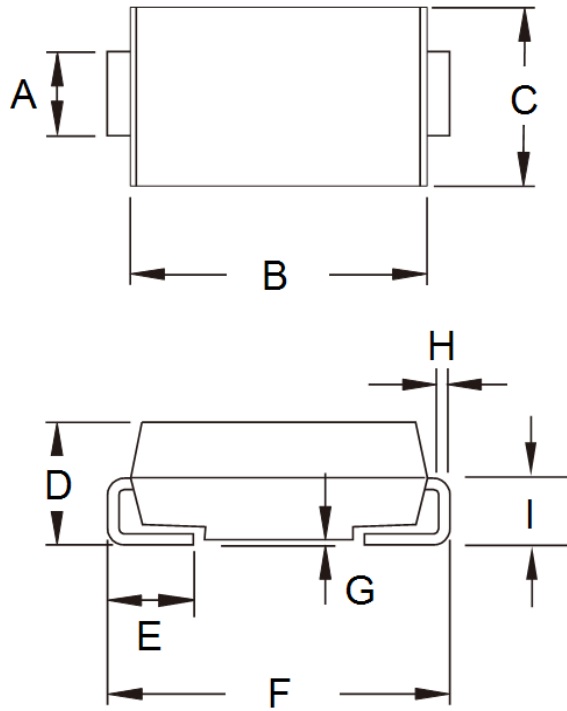
Unit (mm)

Suggested PAD Layout



Symbol	Unit(mm)
A	3.3
B	2.5
C	6.8
D	4.4
E	9.3

Dimensions



DIM.	Unit(mm)		Unit(inch)	
	Min	Max	Min	Max
A	2.90	3.20	0.114	0.126
B	6.60	7.11	0.260	0.280
C	5.59	6.22	0.220	0.245
D	2.00	2.62	0.079	0.103
E	1.00	1.60	0.039	0.063
F	7.75	8.13	0.305	0.320
G	0.10	0.20	0.004	0.008
H	0.15	0.31	0.006	0.012
I	1.26	1.56	0.050	0.061

Marking Diagram



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