

Silicon Planar Zener Diodes

FEATURES

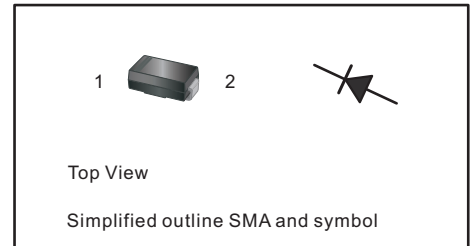
- Total power dissipation: Max. 1.5 W.
- Wide zener reverse voltage range 3.3V to 240V.
- Small plastic package suitable for surface mounted design.

MECHANICAL DATA

- Case: SMA
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.055g / 0.002oz

PINNING

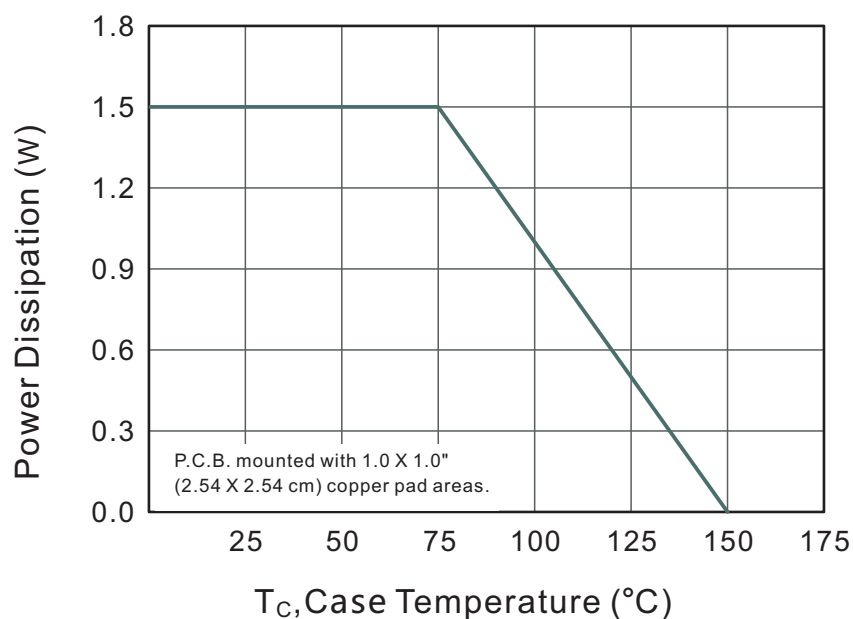
PIN	DESCRIPTION
1	Cathode
2	Anode



Absolute Maximum Ratings And Characteristics (Ta = 25 °C)

Parameter	Symbol	Value	Unit
Power Dissipation at $T_L=75^\circ\text{C}$	P_D	1.5	W
Forward Voltage at $I_F = 200\text{ mA}$	V_F	1.5	V
Junction Temperature Range	T_J	- 55 to + 150	$^\circ\text{C}$
Storage Temperature Range	T_S	- 55 to + 150	$^\circ\text{C}$

Fig.1 Maximum Continuous Power Derating



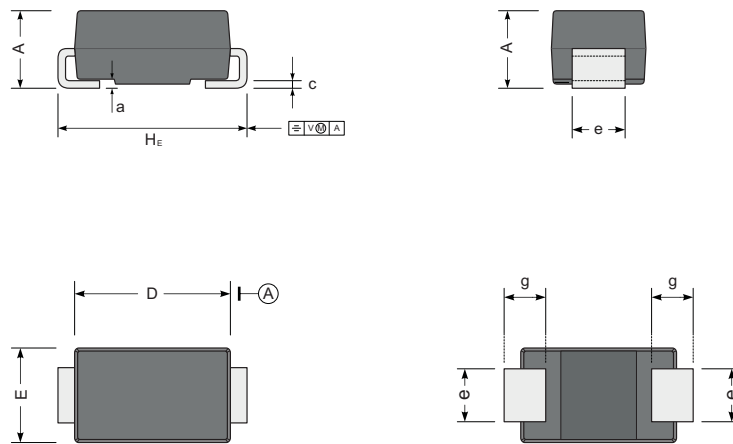
Characteristics at $T_a = 25^\circ\text{C}$

Type (note1)	Marking (note1)	Zener Voltage Range (note2)				Dynamic Impedance	Reverse Current		Admissible Zener Current
		V_{ZT} (at I_{ZT})			at I_{ZT}	Z_{ZT} (at I_{ZT})	I_R	at V_R	
		Min (V)	Nom (V)	Max (V)	(mA)	Max (Ω)	Max (μA)	(V)	I_{ZM} (mA)
1SMA5913BG	913B	3.13	3.3	3.47	113.6	10	100	1	454
1SMA5914BG	914B	3.42	3.6	3.78	104.2	9.0	75	1	416
1SMA5915BG	915B	3.70	3.9	4.10	96.1	7.5	25	1	384
1SMA5916BG	916B	4.08	4.3	4.52	87.2	6.0	5	1	348
1SMA5917BG	917B	4.46	4.7	4.94	79.8	5.0	5	1.5	319
1SMA5918BG	918B	4.84	5.1	5.36	73.5	4.0	5	2	294
1SMA5919BG	919B	5.32	5.6	5.88	66.9	2.0	5	3	267
1SMA5920BG	920B	5.89	6.2	6.51	60.5	2.0	5	4	241
1SMA5921BG	921B	6.46	6.8	7.14	55	2.5	5	5.2	220
1SMA5922BG	922B	7.12	7.5	7.88	50	3.0	5	6	200
1SMA5923BG	923B	7.79	8.2	8.61	45.7	3.5	5	6.5	182
1SMA5924BG	924B	8.60	9.1	9.56	41.2	4.0	5	7	164
1SMA5925BG	925B	9.50	10	10.5	37.5	4.5	5	8	150
1SMA5926BG	926B	10.4	11	11.6	34	5.5	1	8.4	136
1SMA5927BG	927B	11.4	12	12.6	31.2	6.5	1	9	125
1SMA5928BG	928B	12.35	13	14.1	28.8	7.0	1	9.9	115
1SMA5929BG	929B	13.8	15	15.8	25	9.0	1	11.4	100
1SMA5930BG	930B	15.2	16	16.8	23.4	10	1	12.2	93
1SMA5931BG	931B	16.8	18	19.2	21	12	1	13.7	83
1SMA5932BG	932B	19.0	20	21.2	19	14	1	15.2	75
1SMA5933BG	933B	20.8	22	23.3	17	18	1	16.7	68
1SMA5934BG	934B	22.8	24	25.2	16	19	1	18.2	62
1SMA5935BG	935B	25.3	27	28.9	14	23	1	20.6	55
1SMA5936BG	936B	28.2	30	32.0	12.5	26	1	23	50
1SMA5937BG	937B	31.3	33	34.9	11.4	33	1	25	45
1SMA5938BG	938B	34.2	36	37.9	10.4	38	1	27	41
1SMA5939BG	939B	37.2	39	41.5	9.6	45	1	30	38
1SMA5940BG	940B	40.9	43	45.6	8.7	53	1	33	34
1SMA5941BG	941B	44.9	47	49.8	8.0	67	1	36	31
1SMA5942BG	942B	48.6	51	54.0	7.3	70	1	39	29
1SMA5943BG	943B	53.6	56	58.8	6.7	86	1	42	26
1SMA5944BG	944B	58.9	62	65.6	6.0	100	1	47	24
1SMA5945BG	945B	64.6	68	71.7	5.5	120	1	52	22
1SMA5946BG	946B	71.2	75	78.8	5.0	140	1	57	20
1SMA5947BG	947B	77.9	82	87.0	4.6	160	1	62	18
1SMA5948BG	948B	86.0	91	96.0	4.1	200	1	69	16
1SMA5949BG	949B	95.0	100	105	3.7	250	1	76	15
1SMA5950BG	950B	104	110	116	3.4	300	1	84	13
1SMA5951BG	951B	114	120	127	3.1	380	1	91	12
1SMA5952BG	952B	125	130	142	2.9	450	1	100	11
1SMA5953BG	953B	140	150	157	2.5	600	1	114	10
1SMA5954BG	954B	152	160	168	2.3	700	1	121.6	9.0
1SMA5955BG	955B	168	180	189	2.1	900	1	136.8	8.0
1SMA5956BG	956B	189	200	211	1.9	1200	1	152	7.0
1SMA5957BG	957B	228	240	252	1.5	1600	1	182.4	6.0

PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SMA



UNIT		A	D	E	H _E	c	e	g	a
mm	max	2.2	4.5	2.7	5.2	0.31	1.6	1.5	0.3
	min	1.9	4.0	2.3	4.7	0.15	1.3	0.9	
mil	max	87	181	106	205	12	63	59	12
	min	75	157	91	185	6	51	35	

The recommended mounting pad size

