



Silicon Planar Zener Diodes

FEATURES

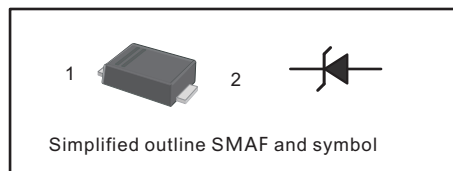
- Total power dissipation: Max. 1.5 W.
- Wide zener reverse voltage range 3.3V to 200V.
- Small plastic package suitable for surface mounted design.

MECHANICAL DATA

- Case: SMAF
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 27mg 0.00095oz

PINNING

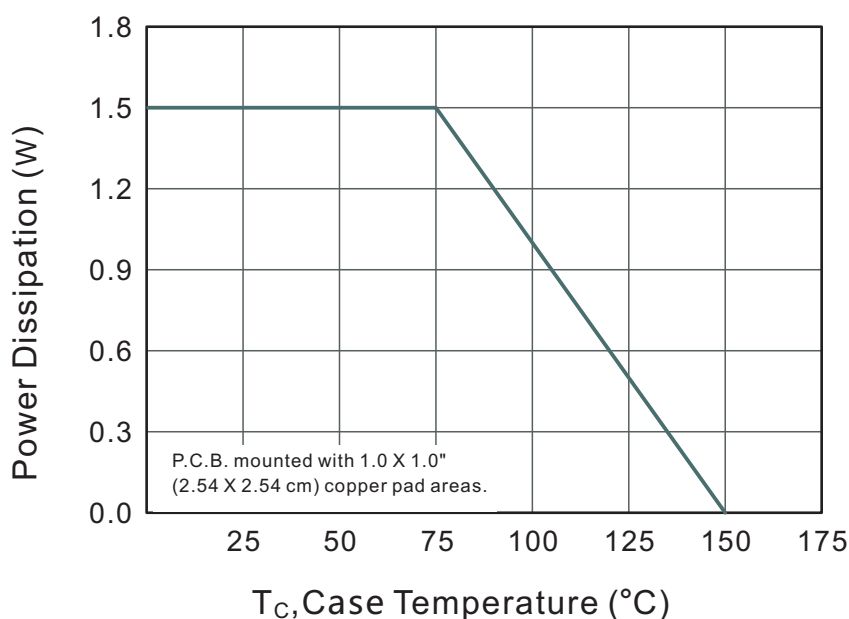
PIN	DESCRIPTION
1	Cathode
2	Anode



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	
		Min (V)	Nom (V)	Max (V)	(mA)	Max (Ω)	Max (μA)	(V)	I_{ZM} (mA)
1SMAF5913B	913B	3.13	3.3	3.47	113.6	10	100	1	454
1SMAF5914B	914B	3.42	3.6	3.78	104.2	9.0	75	1	416
1SMAF5915B	915B	3.70	3.9	4.10	96.1	7.5	25	1	384
1SMAF5916B	916B	4.08	4.3	4.52	87.2	6.0	5	1	348
1SMAF5917B	917B	4.46	4.7	4.94	79.8	5.0	5	1.5	319
1SMAF5918B	918B	4.84	5.1	5.36	73.5	4.0	5	2	294
1SMAF5919B	919B	5.32	5.6	5.88	66.9	2.0	5	3	267
1SMAF5920B	920B	5.89	6.2	6.51	60.5	2.0	5	4	241
1SMAF5921B	921B	6.46	6.8	7.14	55	2.5	5	5.2	220
1SMAF5922B	922B	7.12	7.5	7.88	50	3.0	5	6	200
1SMAF5923B	923B	7.79	8.2	8.61	45.7	3.5	5	6.5	182
1SMAF5924B	924B	8.60	9.1	9.56	41.2	4.0	5	7	164
1SMAF5925B	925B	9.50	10	10.5	37.5	4.5	5	8	150
1SMAF5926B	926B	10.4	11	11.6	34	5.5	1	8.4	136
1SMAF5927B	927B	11.4	12	12.6	31.2	6.5	1	9	125
1SMAF5928B	928B	12.35	13	14.1	28.8	7.0	1	9.9	115
1SMAF5929B	929B	13.8	15	15.8	25	9.0	1	11.4	100
1SMAF5930B	930B	15.2	16	16.8	23.4	10	1	12.2	93
1SMAF5931B	931B	16.8	18	19.2	21	12	1	13.7	83
1SMAF5932B	932B	19.0	20	21.2	19	14	1	15.2	75
1SMAF5933B	933B	20.8	22	23.3	17	18	1	16.7	68
1SMAF5934B	934B	22.8	24	25.2	16	19	1	18.2	62
1SMAF5935B	935B	25.3	27	28.9	14	23	1	20.6	55
1SMAF5936B	936B	28.2	30	32.0	12.5	26	1	23	50
1SMAF5937B	937B	31.3	33	34.9	11.4	33	1	25	45
1SMAF5938B	938B	34.2	36	37.9	10.4	38	1	27	41
1SMAF5939B	939B	37.2	39	41.5	9.6	45	1	30	38
1SMAF5940B	940B	40.9	43	45.6	8.7	53	1	33	34
1SMAF5941B	941B	44.9	47	49.8	8.0	67	1	36	31
1SMAF5942B	942B	48.6	51	54.0	7.3	70	1	39	29
1SMAF5943B	943B	53.6	56	58.8	6.7	86	1	42	26
1SMAF5944B	944B	58.9	62	65.6	6.0	100	1	47	24
1SMAF5945B	945B	64.6	68	71.7	5.5	120	1	52	22
1SMAF5946B	946B	71.2	75	78.8	5.0	140	1	57	20
1SMAF5947B	947B	77.9	82	87.0	4.6	160	1	62	18
1SMAF5948B	948B	86.0	91	96.0	4.1	200	1	69	16
1SMAF5949B	949B	95.0	100	105	3.7	250	1	76	15
1SMAF5950B	950B	104	110	116	3.4	300	1	84	13
1SMAF5951B	951B	114	120	127	3.1	380	1	91	12
1SMAF5952B	952B	125	130	142	2.9	450	1	100	11
1SMAF5953B	953B	140	150	157	2.5	600	1	114	10
1SMAF5954B	954B	152	160	168	2.3	700	1	121.6	9.0
1SMAF5955B	955B	168	180	189	2.1	900	1	136.8	8.0
1SMAF5956B	956B	189	200	211	1.9	1200	1	152	7.0

(1) Suffix "A" indicates $\pm 10\%$ tolerance, Suffix "B" indicates $\pm 5\%$ tolerance, No suffix according to the values in the table.

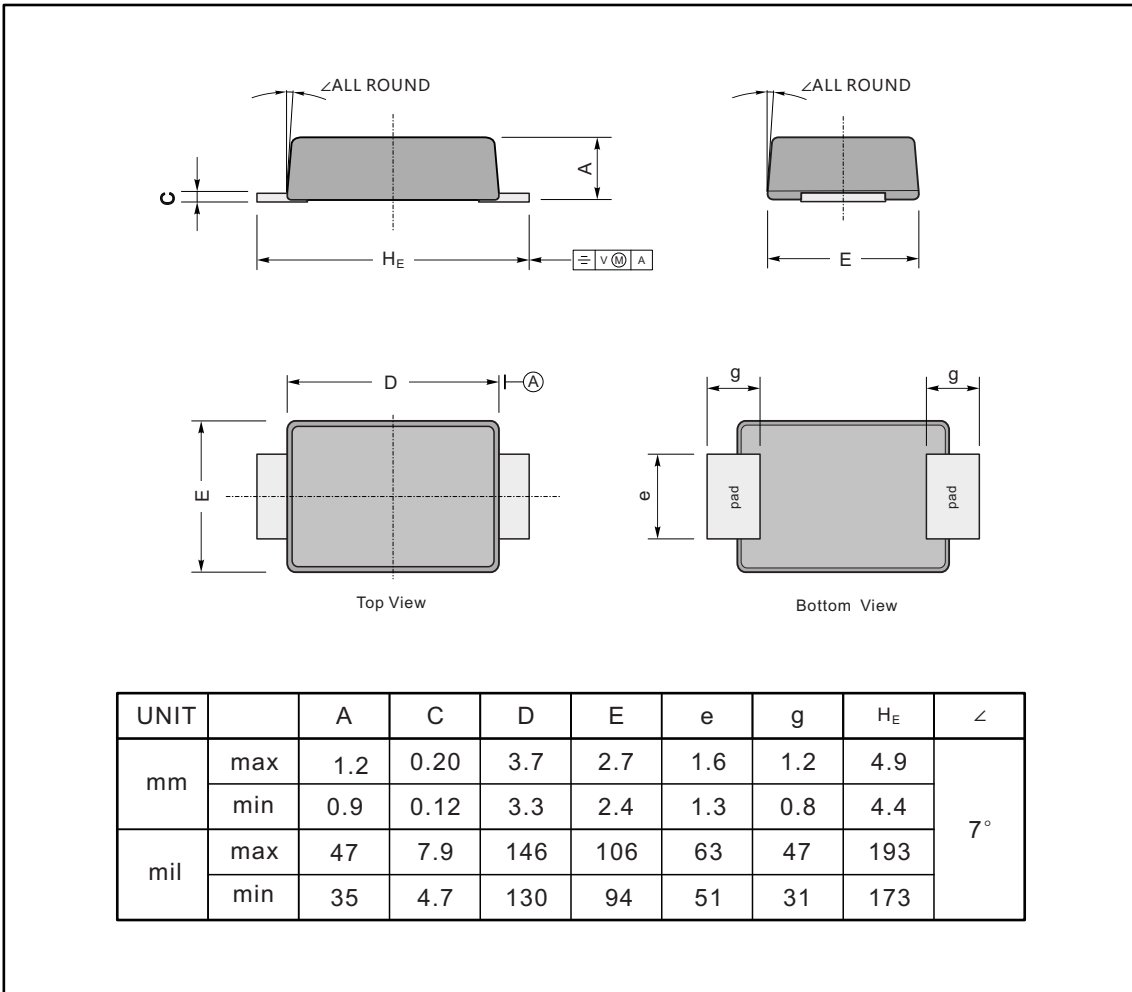
(2) V_{ZT} is tested with pulses (20 ms)



PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SMAF



The recommended mounting pad size

