Silicon Planar Zener Diodes

Pinning

1.Cathode	2.Anode



DO-214AC/SMA

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.
- Lead free in comply with EU RoHS 2011/65/EU directives

MECHANICAL DATA

- Case: DO-214AC/SMA
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.07g / 0.002oz

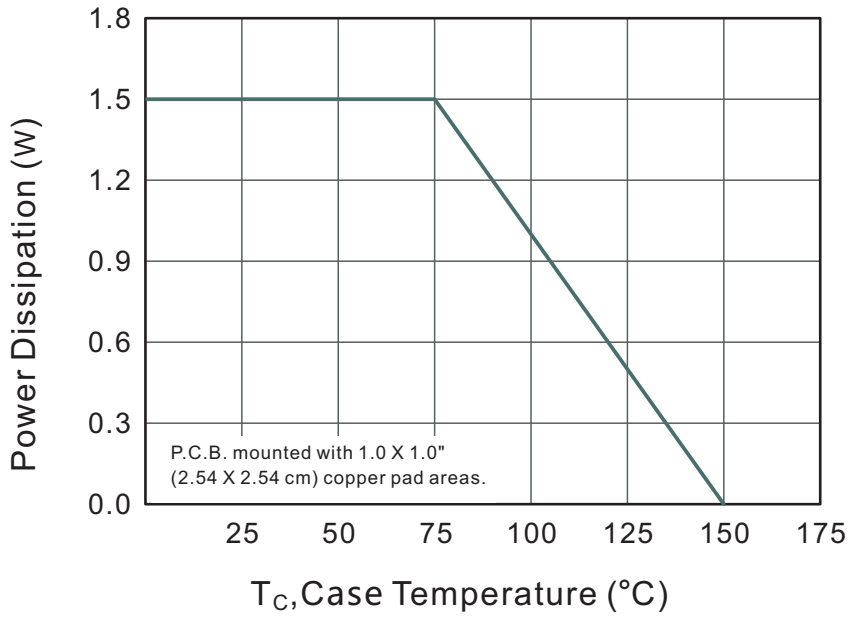
Pb lead-free ROHS

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

Parameter	Symbol	Value	Unit
Power Dissipation at TL=75°C	P_D	1.5	W
Forward Voltage at IF = 200 mA	V_F	1.5	V
Junction Temperature Range	Tj	55 ~ +150	°C
Storage Temperature Range	Ts	-55 ~ +150	°C

（1）Thermal resistance from junction to ambient at P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper areas pads.

Fig.1 Maximum Continuous Power Derating



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Characteristics at T_a = 25°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)
1SMA5913A	913A	2.97	3.3	3.63	113.6	10	100	1	454
1SMA5914A	914A	3.24	3.6	3.96	104.2	9.0	75	1	416
1SMA5915A	915A	3.51	3.9	4.29	96.1	7.5	25	1	384
1SMA5916A	916A	3.87	4.3	4.73	87.2	6.0	5	1	348
1SMA5917A	917A	4.23	4.7	5.17	79.8	5.0	5	1.5	319
1SMA5918A	918A	4.59	5.1	5.61	73.5	4.0	5	2	294
1SMA5919A	919A	5.04	5.6	6.16	66.9	2.0	5	3	267
1SMA5920A	920A	5.58	6.2	6.82	60.5	2.0	5	4	241
1SMA5921A	921A	6.12	6.8	7.48	55	2.5	5	5.2	220
1SMA5922A	922A	6.75	7.5	8.25	50	3.0	5	6	200
1SMA5923A	923A	7.38	8.2	9.02	45.7	3.5	5	6.5	182
1SMA5924A	924A	8.19	9.1	10.01	41.2	4.0	5	7	164
1SMA5925A	925A	9	10	11	37.5	4.5	5	8	150
1SMA5926A	926A	9.9	11	12.1	34	5.5	1	8.4	136
1SMA5927A	927A	10.8	12	13.2	31.2	6.5	1	9	125
1SMA5928A	928A	11.7	13	14.3	28.8	7.0	1	9.9	115
1SMA5929A	929A	13.5	15	16.5	25	9.0	1	11.4	100
1SMA5930A	930A	14.4	16	17.6	23.4	10	1	12.2	93
1SMA5931A	931A	16.2	18	19.8	21	12	1	13.7	83
1SMA5932A	932A	18	20	22	19	14	1	15.2	75
1SMA5933A	933A	19.8	22	24.2	17	18	1	16.7	68
1SMA5934A	934A	21.6	24	26.4	16	19	1	18.2	62
1SMA5935A	935A	24.3	27	29.7	14	23	1	20.6	55
1SMA5936A	936A	27	30	33	12.5	26	1	23	50
1SMA5937A	937A	29.7	33	36.3	11.4	33	1	25	45
1SMA5938A	938A	32.4	36	39.6	10.4	38	1	27	41
1SMA5939A	939A	35.1	39	42.9	9.6	45	1	30	38
1SMA5940A	940A	38.7	43	47.3	8.7	53	1	33	34
1SMA5941A	941A	42.3	47	51.7	8.0	67	1	36	31
1SMA5942A	942A	45.9	51	56.1	7.3	70	1	39	29
1SMA5943A	943A	50.4	56	61.6	6.7	86	1	42	26
1SMA5944A	944A	55.8	62	68.2	6.0	100	1	47	24
1SMA5945A	945A	61.2	68	74.8	5.5	120	1	52	22
1SMA5946A	946A	67.5	75	82.5	5.0	140	1	57	20
1SMA5947A	947A	73.8	82	90.2	4.6	160	1	62	18
1SMA5948A	948A	81.9	91	100.1	4.1	200	1	69	16
1SMA5949A	949A	90	100	110	3.7	250	1	76	15
1SMA5950A	950A	99	110	121	3.4	300	1	84	13
1SMA5951A	951A	108	120	132	3.1	380	1	91	12
1SMA5952A	952A	117	130	143	2.9	450	1	100	11
1SMA5953A	953A	135	150	165	2.5	600	1	114	10
1SMA5954A	954A	144	160	176	2.3	700	1	121.6	9.0
1SMA5955A	955A	162	180	198	2.1	900	1	136.8	8.0
1SMA5956A	956A	180	200	220	1.9	1200	1	152	7.0
1SMA5957A	957A	216	240	264	1.5	1600	1	182.4	6.0

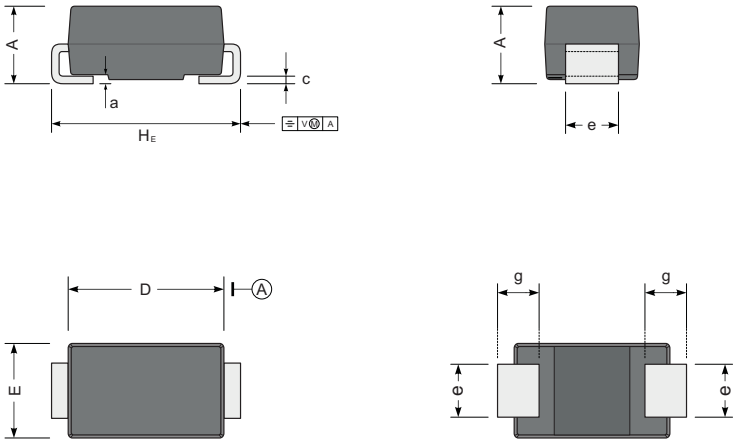
(1) Suffix “A” indicates ±10% tolerance, Suffix “B” indicates ±5% tolerance

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

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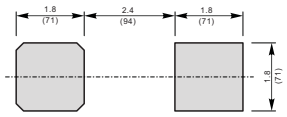
Package Outline DO-214AC SMA

Plastic surface mounted package; 2 leads



UNIT		A	D	E	H_E	c	e	g	a
mm	max	2.42	4.5	2.80	5.2	0.31	1.6	1.5	0.3
	min	1.98	4.0	2.54	4.7	0.15	1.3	0.9	
mil	max	96	181	110	205	12	63	59	12
	min	78	157	100	185	6	51	35	

The recommended mounting pad size



Unit : $\frac{mm}{(mil)}$

Summary of Packing Options

Package	Packing Description	Packing Quantity	Industry Standard
DO-214AC SMA	Tape/Reel,11”reel	5000	EIA-481-1
	Tape/Reel,7”reel	2000	EIA-481-1

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