

Silicon Planar Zener Diodes

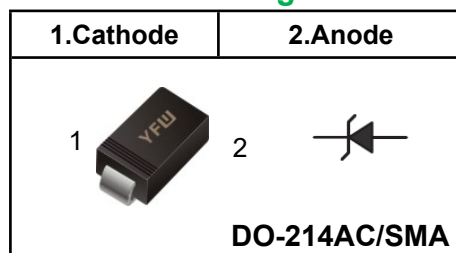
FEATURES

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

Pinning

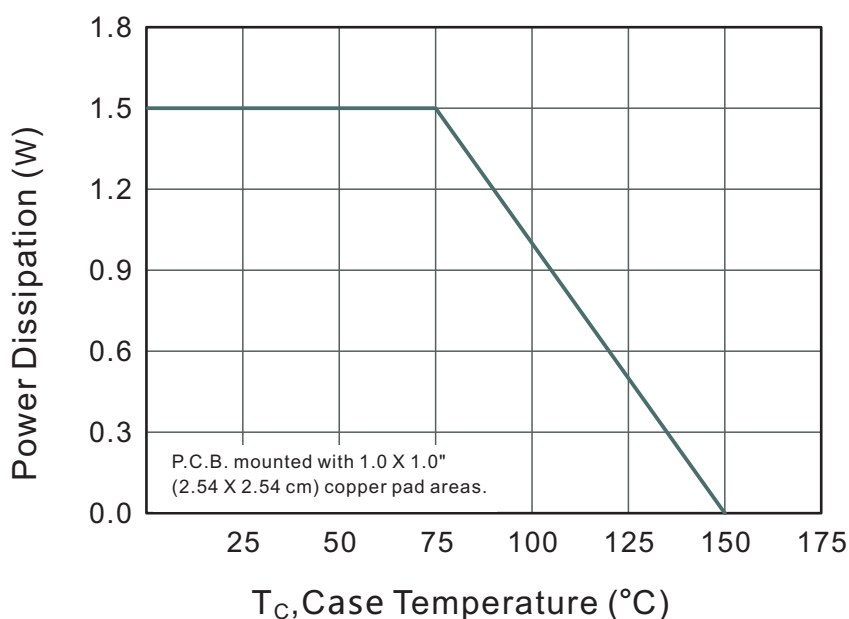


Absolute Maximum Ratings And Characteristics (Ta = 25 °C)

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	T _J	55 ~ +150	°C
Storage Temperature Range	T _s	-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



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)	
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 $\pm 10\%$ tolerance, Suffix "B" indicates $\pm 5\%$ tolerance

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

Marking Diagram



Ordering information

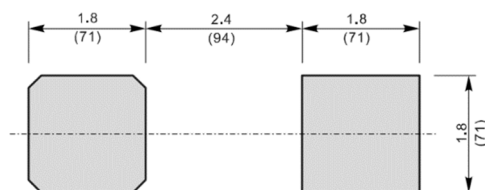
Package	Packing Description	Packing Quantity
DO-214AC SMA	Tape/Reel, 13" reel	5000PCS/Reel 50000PCS/Cartron

Package Dimensions

DO-214AC SMA

Dim.	Millimeter(mm)		mil	
	Min.	Max.	Min.	Max.
A	1.9	2.45	75	96
D	4.0	4.5	157	181
E	2.5	2.8	100	110
H _E	4.7	5.2	185	205
c	0.15	0.31	6	12
e	1.3	1.8	51	71
g	0.9	1.5	35	59
b	0.05	0.2	2	7.9
a	0.3		12	

The recommended mounting pad size



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

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