

Silicon Planar Zener Diodes

FEATURES

- ♦ Total power dissipation: Max. 1.5 W.
- ♦ Wide zener reverse voltage range 3.6V to 200V.
- ♦ 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

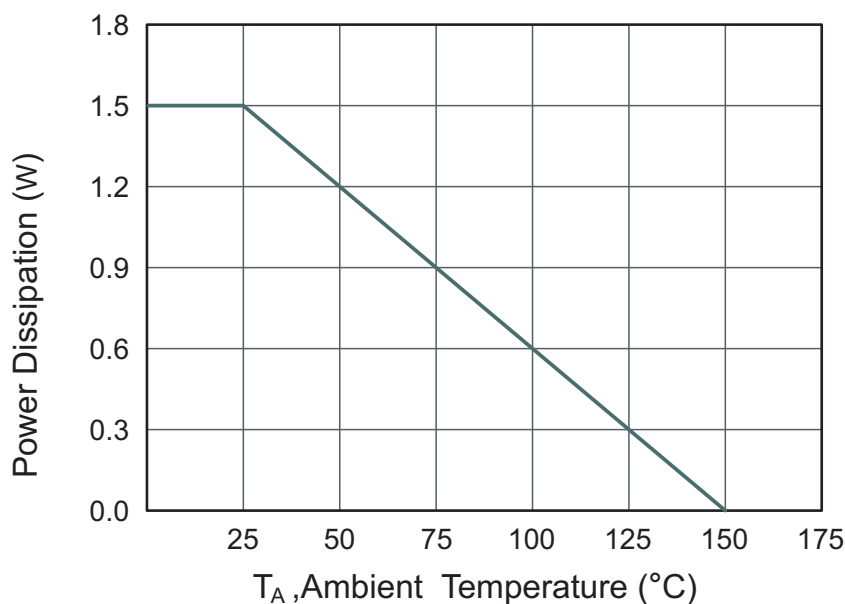
1.Cathode	2.Anode
	
DO-214AC/SMA	

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

Parameter	Symbol	Value	Unit
Power Dissipation at TA=25°C	P _D	1.5	W
Forward Voltage at I _F = 200 mA	V _F	1.5	V
Junction Temperature Range	T _J	- 55 ~ + 150	°C
Storage Temperature Range	T _S	- 55 to + 150	°C
Typical Thermal Resistance ⁽¹⁾	R _{θJA} R _{θJC} R _{θJL}	100 20 25	°C/W

(1) P.C.B. mounted with 0.2" X 0.2" (5 X 5 mm) copper pad areas.

Fig.1 Maximum Continuous Power Derating

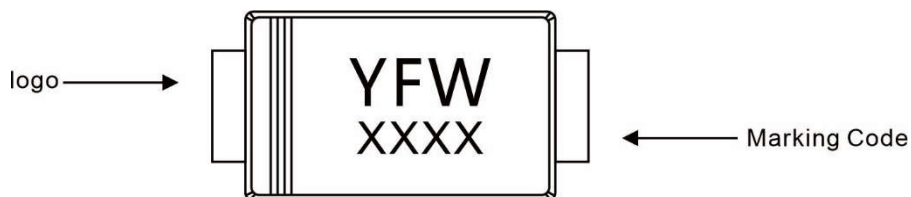


Characteristics at $T_a = 25^{\circ}\text{C}$

Type	Marking	Zener Voltage Range ⁽¹⁾			I _{ZT}	Dynamic Impedance	Reverse Current		Admissible Zener Current
		V _{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)
1SMA5914B	914B	3.42	3.6	3.78	104.2	9.0	75	1	416
1SMA5915B	915B	3.70	3.9	4.10	96.1	7.5	25	1	384
1SMA5916B	916B	4.08	4.3	4.52	87.2	6.0	5	1	348
1SMA5917B	917B	4.46	4.7	4.94	79.8	5.0	5	1.5	319
1SMA5918B	918B	4.84	5.1	5.36	73.5	4.0	5	2	294
1SMA5919B	919B	5.32	5.6	5.88	66.9	2.0	5	3	267
1SMA5920B	920B	5.89	6.2	6.51	60.5	2.0	5	4	241
1SMA5921B	921B	6.46	6.8	7.14	55	2.5	5	5.2	220
1SMA5922B	922B	7.12	7.5	7.88	50	3.0	5	6	200
1SMA5923B	923B	7.79	8.2	8.61	45.7	3.5	5	6.5	182
1SMA5924B	924B	8.60	9.1	9.56	41.2	4.0	5	7	164
1SMA5925B	925B	9.50	10	10.5	37.5	4.5	5	8	150
1SMA5926B	926B	10.4	11	11.6	34	5.5	1	8.4	136
1SMA5927B	927B	11.4	12	12.6	31.2	6.5	1	9	125
1SMA5928B	928B	12.35	13	14.1	28.8	7.0	1	9.9	115
1SMA5929B	929B	13.8	15	15.8	25	9.0	1	11.4	100
1SMA5930B	930B	15.2	16	16.8	23.4	10	1	12.2	93
1SMA5931B	931B	16.8	18	19.2	21	12	1	13.7	83
1SMA5932B	932B	19.0	20	21.2	19	14	1	15.2	75
1SMA5933B	933B	20.8	22	23.3	17	18	1	16.7	68
1SMA5934B	934B	22.8	24	25.2	16	19	1	18.2	62
1SMA5935B	935B	25.3	27	28.9	14	23	1	20.6	55
1SMA5936B	936B	28.2	30	32.0	12.5	26	1	23	50
1SMA5937B	937B	31.3	33	34.9	11.4	33	1	25	45
1SMA5938B	938B	34.2	36	37.9	10.4	38	1	27	41
1SMA5939B	939B	37.2	39	41.5	9.6	45	1	30	38
1SMA5940B	940B	40.9	43	45.6	8.7	53	1	33	34
1SMA5941B	941B	44.9	47	49.8	8.0	67	1	36	31
1SMA5942B	942B	48.6	51	54.0	7.3	70	1	39	29
1SMA5943B	943B	53.6	56	58.8	6.7	86	1	42	26
1SMA5944B	944B	58.9	62	65.6	6.0	100	1	47	24
1SMA5945B	945B	64.6	68	71.7	5.5	120	1	52	22
1SMA5946B	946B	71.2	75	78.8	5.0	140	1	57	20
1SMA5947B	947B	77.9	82	87.0	4.6	160	1	62	18
1SMA5948B	948B	86.0	91	96.0	4.1	200	1	69	16
1SMA5949B	949B	95.0	100	105	3.7	250	1	76	15
1SMA5950B	950B	104	110	116	3.4	300	1	84	13
1SMA5951B	951B	114	120	127	3.1	380	1	91	12
1SMA5952B	952B	125	130	142	2.9	450	1	100	11
1SMA5953B	953B	140	150	157	2.5	600	1	114	10
1SMA5954B	954B	152	160	168	2.3	700	1	121.6	9.0
1SMA5955B	955B	168	180	189	2.1	900	1	136.8	8.0
1SMA5956B	956B	189	200	211	1.9	1200	1	152	7.0

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

Marking Diagram



Ordering information

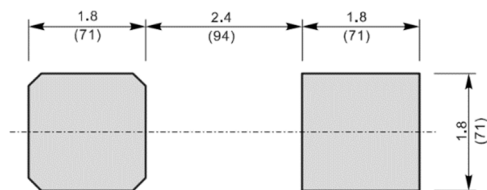
Package	Packing Description	Packing Quantity
DO-214AC SMA	Tape/Reel, 13" reel	5000PCS/Reel 50000PCS/Cartron

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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