

Silicon Planar Zener Diodes

FEATURES

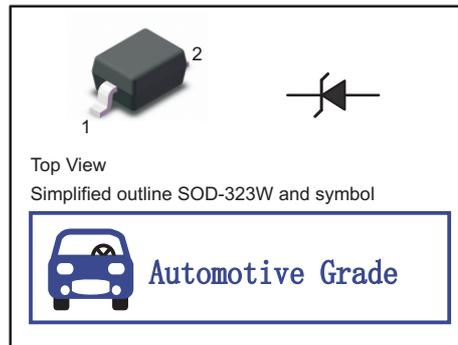
- Total power dissipation: Max. 300mW.
- Wide zener reverse voltage range 2.0V to 75V.
- Small plastic package suitable for surface mounted design.
- Tolerance approximately $\pm 5\%$
- Qualified to AEC-Q101 Standards for High Reliability

MECHANICAL DATA

- Case: SOD-323W
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 5.48mg / 0.00019oz

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode



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

Parameter	Symbol	Value	Unit
Power Dissipation	P_{tot}	300	mW
Forward Voltage at $I_F = 10 \text{ mA}$	V_F	0.9	V
Typical thermal resistance juncting to ambient ⁽¹⁾	$R_{\theta JA}$	417	$^{\circ}\text{C}/\text{W}$
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150	$^{\circ}\text{C}$

(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

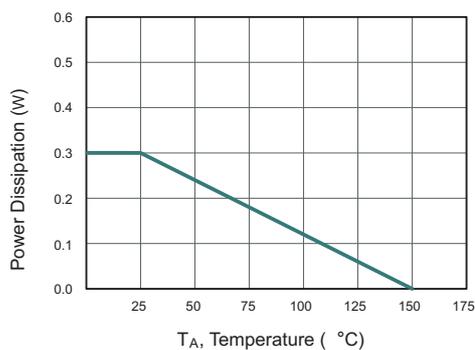
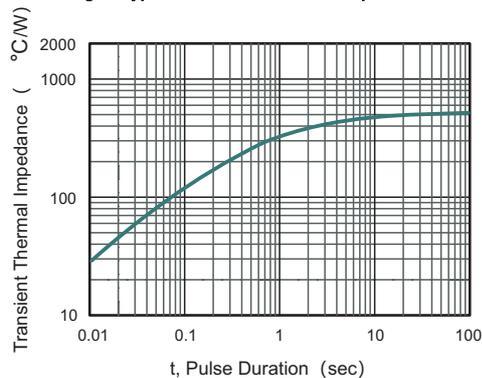


Fig.2 Typical Transient Thermal Impedance





Characteristics at Ta = 25°C

Type	Marking	Zener Voltage Range ⁽¹⁾			I _{ZT} (mA)	Dynamic Impedance	Reverse Current	
		V _{ZT} (at I _{ZT})				Z _{ZT} (at I _{ZT})	I _R	at V _R
		Min (V)	Nom (V)	Max (V)		Max (Ω)	Max (μA)	(V)
MM3Z2V0W	B0	1.8	2.0	2.15	5	100	120	0.5
MM3Z2V2W	C0	2.08	2.2	2.33	5	100	120	0.7
MM3Z2V4W	1C	2.28	2.4	2.56	5	100	120	1
MM3Z2V7W	1D	2.5	2.7	2.9	5	110	120	1
MM3Z3V0W	1E	2.8	3.0	3.2	5	120	50	1
MM3Z3V3W	1F	3.1	3.3	3.5	5	130	20	1
MM3Z3V6W	1H	3.4	3.6	3.8	5	130	10	1
MM3Z3V9W	1J	3.7	3.9	4.1	5	130	5	1
MM3Z4V3W	1K	4	4.3	4.6	5	130	5	1
MM3Z4V7W	1M	4.4	4.7	5	5	130	2	1
MM3Z5V1W	1N	4.8	5.1	5.4	5	130	2	1.5
MM3Z6V2W	1R	5.8	6.2	6.6	5	50	1	3
MM3Z6V8W	1X	6.4	6.8	7.2	5	30	0.5	3.5
MM3Z7V5W	1Y	7	7.5	7.9	5	30	0.5	4
MM3Z8V2W	1Z	7.7	8.2	8.7	5	30	0.5	5
MM3Z9V1W	2A	8.5	9.1	9.6	5	30	0.5	6
MM3Z10W	2B	9.4	10	10.6	5	30	0.1	7
MM3Z11W	2C	10.4	11	11.6	5	30	0.1	8
MM3Z12W	2D	11.4	12	12.7	5	35	0.1	9
MM3Z13W	2E	12.4	13	14.1	5	35	0.1	10
MM3Z16W	2H	15.3	16	17.1	5	40	0.1	12
MM3Z18W	2J	16.8	18	19.1	5	45	0.1	13
MM3Z20W	2K	18.8	20	21.2	5	50	0.1	15
MM3Z22W	2M	20.8	22	23.3	5	55	0.1	17
MM3Z24W	2N	22.8	24	25.6	5	60	0.1	19
MM3Z27W	2P	25.1	27	28.9	2	70	0.1	21
MM3Z30W	2R	28	30	32	2	80	0.1	23
MM3Z33W	2X	31	33	35	2	80	0.1	25
MM3Z36W	2Y	34	36	38	2	90	0.1	27
MM3Z39W	2Z	37	39	41	2	100	0.1	30
MM3Z43W	3A	40	43	46	2	130	0.1	33
MM3Z47W	3B	44	47	50	2	150	0.1	36
MM3Z51W	3C	48	51	54	2	180	0.1	39
MM3Z56W	3D	52	56	60	2	200	0.1	43
MM3Z62W	3E	58	62	66	2	215	0.1	47
MM3Z68W	3F	64	68	72	2	240	0.1	52
MM3Z75W	3H	70	75	79	2	265	0.1	56

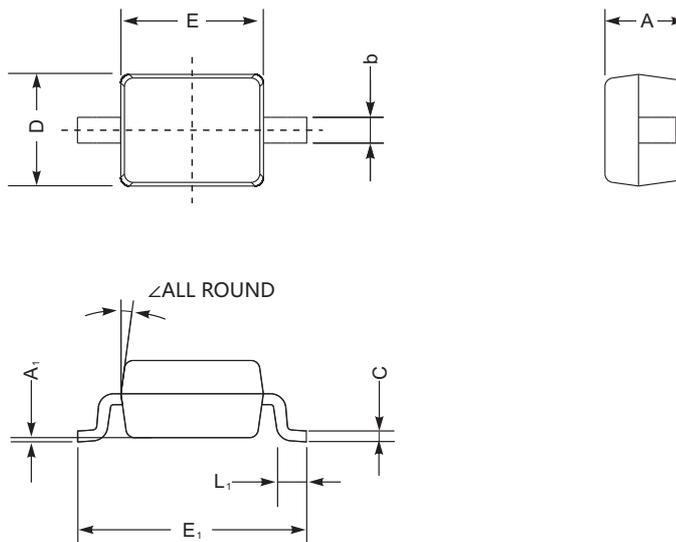
(1) V_{ZT} is tested with pulses (20 ms)



PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

SOD-323W



SOD-323W mechanical data

UNIT		A	C	D	E	E ₁	b	L ₁	A ₁	∠
mm	max	1.1	0.15	1.4	1.8	2.75	0.4	0.45	0.2	9°
	min	0.8	0.08	1.2	1.4	2.55	0.25	0.2	—	
mil	max	43	5.9	55	70	108	16	16	8	
	min	32	3.1	47	55	100	9.8	7.9	—	

The recommended mounting pad size

