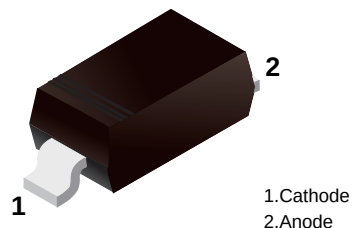


■ Silicon Planar Zener Diodes

■ Features

- Total power dissipation: Max. 500mW.
- Wide zener reverse voltage range 2.4V to 39V.
- Small plastic package suitable for surface mounted design.
- Tolerance approximately $\pm 5\%$



■ Simplified outline(SOD-323)

Top View

■ Absolute Maximum Ratings And Characteristics Ta = 25°C

Parameter	Symbol	Value	Unit
Power Dissipation	P_{tot}	500	mW
Typical thermal resistance junction to ambient ⁽¹⁾	$R_{\theta JA}$	340	°C/W
Operating and Storage Temperature Range	T_j, T_{stg}	-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

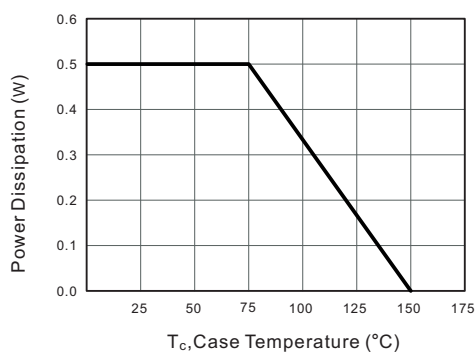
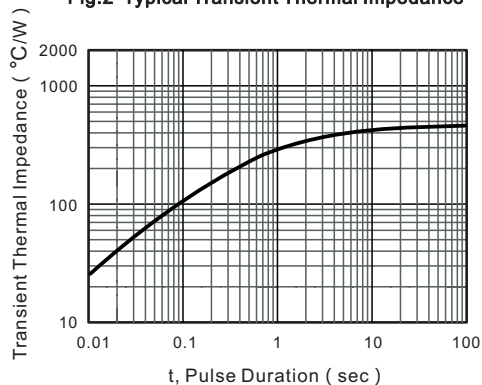


Fig.2 Typical Transient Thermal Impedance



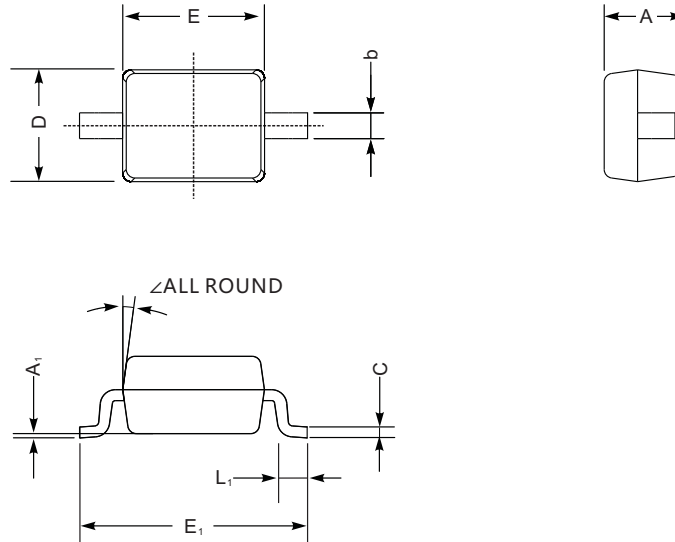
Type	Mark	Zener Voltage Range ⁽¹⁾			Dynamic Impedance				Reverse Current	
		V_{ZT} (at I_{ZT})			I_{ZT}	Z_{ZT} (at I_{ZT})	I_{ZK}	Z_{ZK} (at I_{ZK})	I_R	at V_R
		Min (V)	Nom (V)	Max (V)	(mA)	Max (Ω)	(mA)	Max (Ω)	Max (nA)	(V)
MMSZ5221BS	C1	2.28	2.4	2.52	20	30	0.25	1200	100	1
MMSZ5222BS	C2	2.38	2.5	2.63	20	30	0.25	1250	100	1
MMSZ5223BS	C3	2.57	2.7	2.84	20	30	0.25	1300	75	1
MMSZ5225BS	C5	2.85	3	3.15	20	30	0.25	1600	50	1
MMSZ5226BS	D1	3.14	3.3	3.47	20	28	0.25	1600	25	1
MMSZ5227BS	D2	3.42	3.6	3.78	20	24	0.25	1700	15	1
MMSZ5228BS	D3	3.71	3.9	4.1	20	23	0.25	1900	10	1
MMSZ5229BS	D4	4.09	4.3	4.52	20	22	0.25	2000	5	1
MMSZ5230BS	D5	4.47	4.7	4.94	20	19	0.25	1900	5	2
MMSZ5231BS	E1	4.85	5.1	5.36	20	17	0.25	1600	5	2
MMSZ5232BS	E2	5.32	5.6	5.88	20	11	0.25	1600	5	3
MMSZ5234BS	E4	5.89	6.2	6.51	20	7	0.25	1000	5	4
MMSZ5235BS	E5	6.46	6.8	7.14	20	5	0.25	750	3	5
MMSZ5236BS	F1	7.13	7.5	7.88	20	6	0.25	500	3	6
MMSZ5237BS	F2	7.79	8.2	8.61	20	8	0.25	500	3	6
MMSZ5239BS	F4	8.65	9.1	9.56	20	10	0.25	600	3	6.5
MMSZ5240BS	F5	9.5	10	10.5	20	17	0.25	600	3	8
MMSZ5241BS	H1	10.45	11	11.55	20	22	0.25	600	3	8.4
MMSZ5242BS	H2	11.4	12	12.6	20	30	0.25	600	2	9.1
MMSZ5243BS	H3	12.35	13	13.65	9.5	13	0.25	600	1	9.9
MMSZ5245BS	H5	14.25	15	15.75	8.5	16	0.25	600	0.5	11
MMSZ5246BS	J1	15.2	16	16.8	7.8	17	0.25	600	0.1	12
MMSZ5248BS	J3	17.1	18	18.9	7	21	0.25	600	0.1	14
MMSZ5250BS	J5	19	20	21	6.2	25	0.25	600	0.1	15
MMSZ5251BS	K1	20.9	22	23.1	5.6	29	0.25	600	0.1	17
MMSZ5252BS	K2	22.8	24	25.2	5.2	33	0.25	600	0.1	18
MMSZ5254BS	K4	25.65	27	28.35	5	41	0.25	600	0.1	21
MMSZ5255BS	K5	26.6	28	29.4	4.5	44	0.25	600	0.1	21
MMSZ5256BS	M1	28.5	30	31.5	4.2	49	0.25	600	0.1	23
MMSZ5257BS	M2	31.35	33	34.65	3.8	58	0.25	700	0.1	25
MMSZ5258BS	M3	34.2	36	37.8	3.4	70	0.25	700	0.1	27
MMSZ5259BS	M4	37.05	39	40.95	3.2	80	0.25	800	0.1	30

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

Package Outline

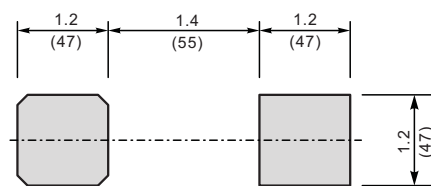
SOD-323

Plastic surface mounted package; 2 leads



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	63	100	9.8	7.9	—	

The recommended mounting pad size



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

Summary of Packing Options

Package	Packing Description	Packing Quantity	Industry Standard
SOD-323	Tape/Reel, 7" reel	3000	EIA-481-1