MM3Z2V0BW thru MM3Z75BW

Silicon Planar Zener Diodes

Features

- Total Power Dissipation: Max. 300 mW
- Small Plastic Package Suitable for Surface Mounted Design
- Wide zener reverse voltage range 2V to 75V
- Tolerance approximately Ñ2%

PINNING

PIN	DESCRIPTION
1	Cathode
2	Anode

Top View

Simplified outline SOD-323W and symbol

Absolute Maximum Ratings (T_A = 25 °C)

Parameter	Symbol	Value	Unit
Power Dissipation	P_D	300	mW
Junction Temperature	T_J	150	°C
Storage Temperature Range	T_{STG}	- 55 to + 150	°C

Characteristics at T_A = 25 °C

Parameter	Symbol	Max.	Unit
Thermal Resistance Junction to Ambient Air (1)	$R_{\theta JA}$	417	°C/W
Forward Voltage at I_F = 10 mA	V_F	0.9	V

Note: 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.

Electrical Characteristics

Ratings at T_A = 25℃ ambient temperature unless otherwise specified.

Type	Zener Voltage Range Note1			I_{ZT}	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)	(mA)	Max (Ω)	Max (μA)	(V)
MM3Z2V0BW	1.96	2.0	2.04	5	100	120	0.5
MM3Z2V2BW	2.16	2.2	2.24	5	100	120	0.7
MM3Z2V4BW	2.35	2.4	2.45	5	100	120	1
MM3Z2V7BW	2.65	2.7	2.75	5	110	120	1
MM3Z3V0BW	2.94	3.0	3.06	5	120	50	1
MM3Z3V3BW	3.23	3.3	3.37	5	130	20	1
MM3Z3V6BW	3.53	3.6	3.67	5	130	10	1
MM3Z3V9BW	3.82	3.9	3.98	5	130	5	1
MM3Z4V3BW	4.21	4.3	4.39	5	130	5	1
MM3Z4V7BW	4.61	4.7	4.79	5	130	2	1
MM3Z5V1BW	5	5.1	5.2	5	130	2	1.5
MM3Z5V6BW	5.49	5.6	5.71	5	80	1	2.5
MM3Z6V2BW	6.08	6.2	6.32	5	50	1	3
MM3Z6V8BW	6.66	6.8	6.94	5	30	0.5	3.5
MM3Z7V5BW	7.35	7.5	7.65	5	30	0.5	4
MM3Z8V2BW	8.04	8.2	8.36	5	30	0.5	5
MM3Z9V1BW	8.92	9.1	9.28	5	30	0.5	6
MM3Z10BW	9.8	10	10.2	5	30	0.1	7
MM3Z11BW	10.78	11	11.22	5	30	0.1	8
MM3Z12BW	11.76	12	12.24	5	35	0.1	9
MM3Z13BW	12.74	13	13.26	5	35	0.1	10
MM3Z15BW	14.7	15	15.3	5	40	0.1	11
MM3Z16BW	15.68	16	16.32	5	40	0.1	12
MM3Z18BW	17.64	18	18.36	5	45	0.1	13
MM3Z20BW	19.6	20	20.4	5	50	0.1	15
MM3Z22BW	21.56	22	22.44	5	55	0.1	17
MM3Z24BW	23.52	24	24.48	5	60	0.1	19
MM3Z27BW	26.46	27	27.54	2	70	0.1	21
MM3Z30BW	29.4	30	30.60	2	80	0.1	23
MM3Z33BW	32.34	33	33.66	2	80	0.1	25
MM3Z36BW	35.28	36	36.72	2	90	0.1	27
MM3Z39BW	38.22	39	39.78	2	100	0.1	30
MM3Z43BW	42.14	43	43.86	2	130	0.1	33
MM3Z47BW	46.06	47	47.94	2	150	0.1	36
MM3Z51BW	49.98	51	52.02	2	180	0.1	39
MM3Z56BW	54.88	56	57.12	2	200	0.1	43
MM3Z62BW	60.76	62	63.24	2	215	0.1	47
MM3Z68BW	66.64	68	69.36	2	240	0.1	52
MM3Z75BW	73.5	75	76.5	2	265	0.1	56

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

Ratings and Characteristic Curves

Fig.1 Maximum Continuous Power Derating

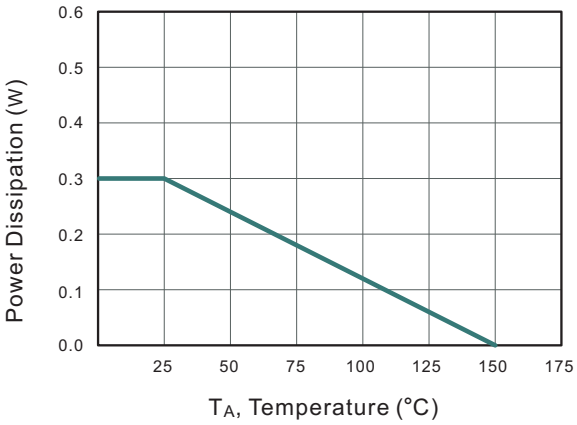
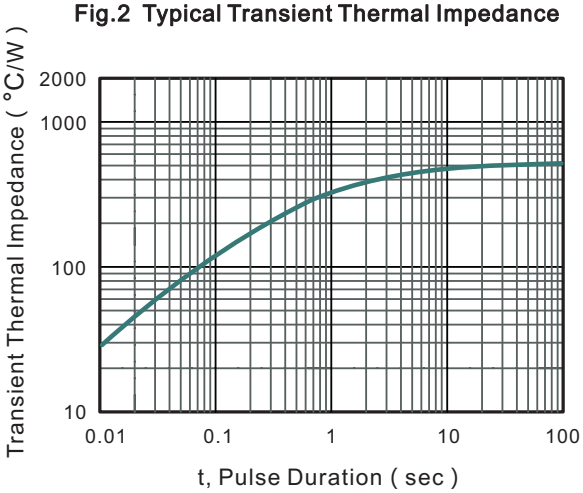


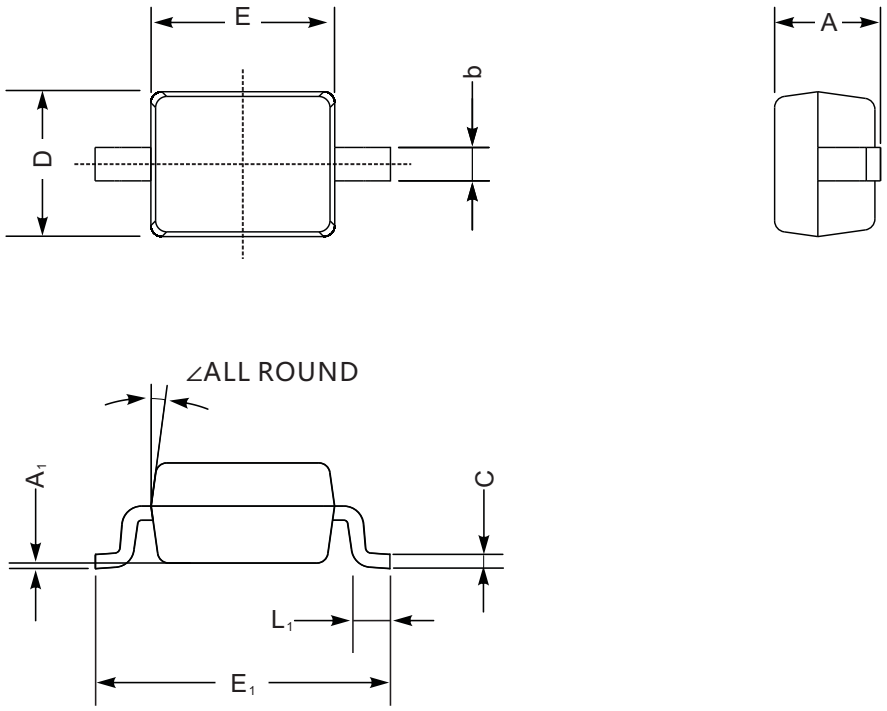
Fig.2 Typical Transient Thermal Impedance



Package Outline

SOD-323W

Dimensions in mm



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	63	100	9.8	7.9	—	