MM1Z2B0WAT THRU MM1ZB75WAT

Silicon Planar Zener Diodes

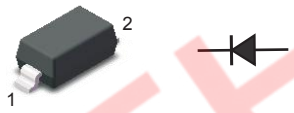
Power DissipWATion: 500mW Zener Voltage: 2.0V to 75V

FeWATures

- Total power dissipWATion: Max. 500mW.
- Wide zener reverse voltage range 2.0V to 75V.
- Small plastic package suitable for surface mounted design
- Tolerance approximWATely±2%

PINNING

PIN	DESCRIPTION
1	CWAThode
2	Anode



Simplified outline SOD-123W and symbol

Mechanical DWATa

- Case: SOD-123W
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight:16mg 0.00056oz

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

Parameter	Symbol	Value	Unit
Power DissipWATion	P_{tot}	500	mW
Forward Voltage WAT I_F = 10 mA	V_F	0.9	V
Typical thermal resistance juncting to ambient (1)	$R_{\theta JA}$	340	°C/W
OperWATing and Storage TemperWATure Range	T_j, T_{stg}	-55 ~ +150	°C

(1) Thermal resistance from junction to ambient WAT P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper areas pads.

Fig.1 Maximum Continuous Power DerWATing

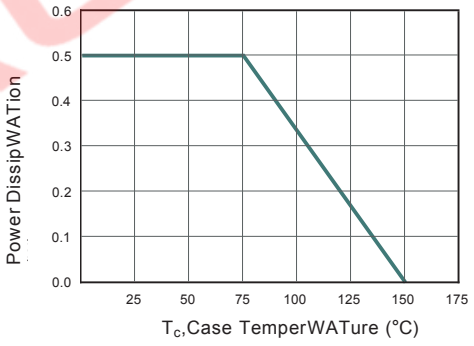
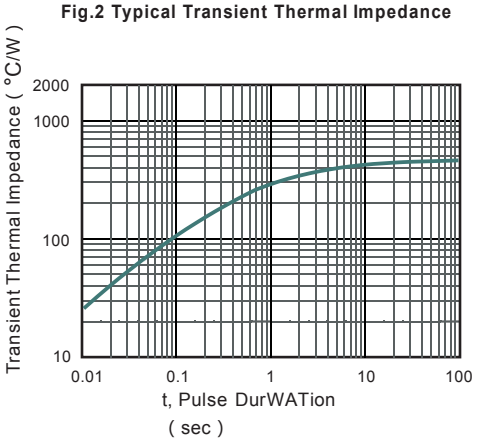


Fig.2 Typical Transient Thermal Impedance



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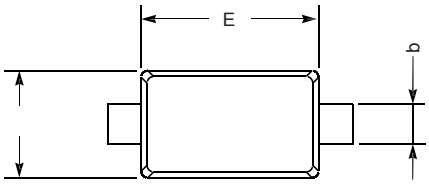
Characteristics WAT Ta = 25°C

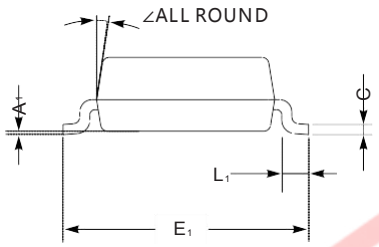
Type	Marking	Zener Voltage Range (1)				Dynamic Impedance	Reverse Current	
		V_{ZT} (WAT I_{ZT})			I_{ZT}	Z_{ZT} (WAT	I_R	WAT V_R
		Min (V)	Nom (V)	Max (V)	(mA)	Max (Ω)	Max (μA)	(V)
MM1Z2B0WAT	A4	1.96	2	2.04	5	100	120	0.5
MM1Z2B2WAT	B4	2.16	2.2	2.24	5	100	120	0.7
MM1Z2B4WAT	C4	2.35	2.4	2.45	5	100	120	1
MM1Z2B7WAT	D4	2.65	2.7	2.75	5	110	120	1
MM1Z3B0WAT	E4	2.94	3	3.06	5	120	50	1
MM1Z3B3WAT	F4	3.23	3.3	3.37	5	130	20	1
MM1Z3B6WAT	H4	3.53	3.6	3.67	5	130	10	1
MM1Z3B9WAT	J4	3.82	3.9	3.98	5	130	5	1
MM1Z4B3WAT	K4	4.21	4.3	4.39	5	130	5	1
MM1Z4B7WAT	M4	4.61	4.7	4.79	5	130	2	1
MM1Z5B1WAT	N4	5	5.1	5.20	5	130	2	1.5
MM1Z5B6WAT	P4	5.49	5.6	5.71	5	80	1	2.5
MM1Z6B2WAT	R4	6.08	6.2	6.32	5	50	1	3
MM1Z6B8WAT	X4	6.66	6.8	6.94	5	30	0.5	3.5
MM1Z7B5WAT	Y4	7.35	7.5	7.65	5	30	0.5	4
MM1Z8B2WAT	Z4	8.04	8.2	8.36	5	30	0.5	5
MM1Z9B1WAT	A5	8.92	9.1	9.28	5	30	0.5	6
MM1ZB10WAT	B5	9.8	10	10.2	5	30	0.1	7
MM1ZB11WAT	C5	10.78	11	11.22	5	30	0.1	8
MM1ZB12WAT	D5	11.76	12	12.24	5	35	0.1	9
MM1ZB13WAT	E5	12.74	13	13.26	5	35	0.1	10
MM1ZB15WAT	F5	14.7	15	15.3	5	40	0.1	11
MM1ZB16WAT	H5	15.68	16	16.32	5	40	0.1	12
MM1ZB18WAT	J5	17.64	18	18.36	5	45	0.1	13
MM1ZB20WAT	K5	19.6	20	20.4	5	50	0.1	15
MM1ZB22WAT	M5	21.56	22	22.44	5	55	0.1	17
MM1ZB24WAT	N5	23.52	24	24.48	5	60	0.1	19
MM1ZB27WAT	P5	26.46	27	27.54	5	70	0.1	21
MM1ZB30WAT	R5	29.4	30	30.6	5	80	0.1	23
MM1ZB33WAT	X5	32.34	33	33.66	5	80	0.1	25
MM1ZB36WAT	Y5	35.28	36	36.72	5	90	0.1	27
MM1ZB39WAT	Z5	38.22	39	39.78	2.5	100	2	30
MM1ZB43WAT	A6	42.14	43	43.86	2.5	130	2	33
MM1ZB47WAT	B6	46.06	47	47.94	2.5	150	2	36
MM1ZB51WAT	C6	49.98	51	52.02	2.5	180	1	39
MM1ZB56WAT	D6	54.88	56	57.12	2.5	180	1	43
MM1ZB62WAT	E6	60.76	62	63.24	2.5	200	0.2	47
MM1ZB68WAT	F6	66.64	68	69.36	2.5	250	0.2	52
MM1ZB75WAT	H6	73.5	75	76.5	2.5	300	0.2	57

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

Package Outline

SOD-123W





SOD-123W mechanical

UNIT		A	C	D	E	E_1	L_1	b	A_1	∠
mm	max	1.3	0.22	1.8	2.8	3.9	0.45	0.7	0.2	9°
	min	0.9	0.09	1.5	2.5	3.6	0.25	0.5	—	
mil	max	51	8.7	71	110	154	18	28	8	
	min	35	3.5	59	98	142	10	20	—	

The recommended mounting pad size