

# MM1Z2V0WAT THRU MM1Z75WAT

## Silicon Planar Zener Diodes

Power Dissipation: 500mW

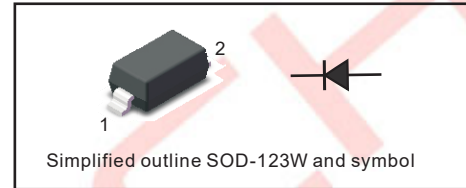
Zener Voltage: 2.0V to 75V

### Features

- ◆ Total power dissipation: Max. 500mW.
- ◆ Wide zener reverse voltage range 2.0V to 75V.
- ◆ Small plastic package suitable for surface mounted design
- ◆ Tolerance approximately  $\pm 5\%$

### PINNING

PIN	DESCRIPTION
1	CWAThode
2	Anode



### Mechanical Data

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

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

Parameter	Symbol	Value	Unit
Power Dissipation	$P_{tot}$	500	mW
Forward Voltage WAT $I_F = 10$ mA	$V_F$	0.9	V
Typical thermal resistance junction to ambient <sup>(1)</sup>	$R_{\theta JA}$	340	$^{\circ}C/W$
Operating and Storage Temperature Range	$T_j, T_{stg}$	-55 ~ +150	$^{\circ}C$

(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 Derating

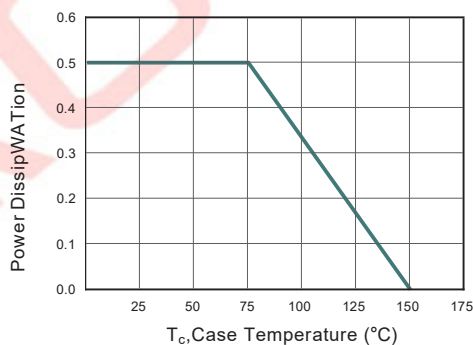
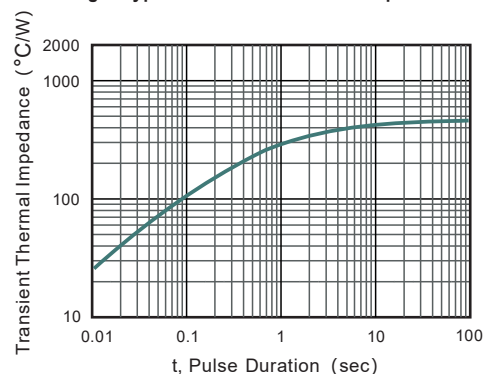


Fig.2 Typical Transient Thermal Impedance



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## Characteristics WAT Ta= 25°C

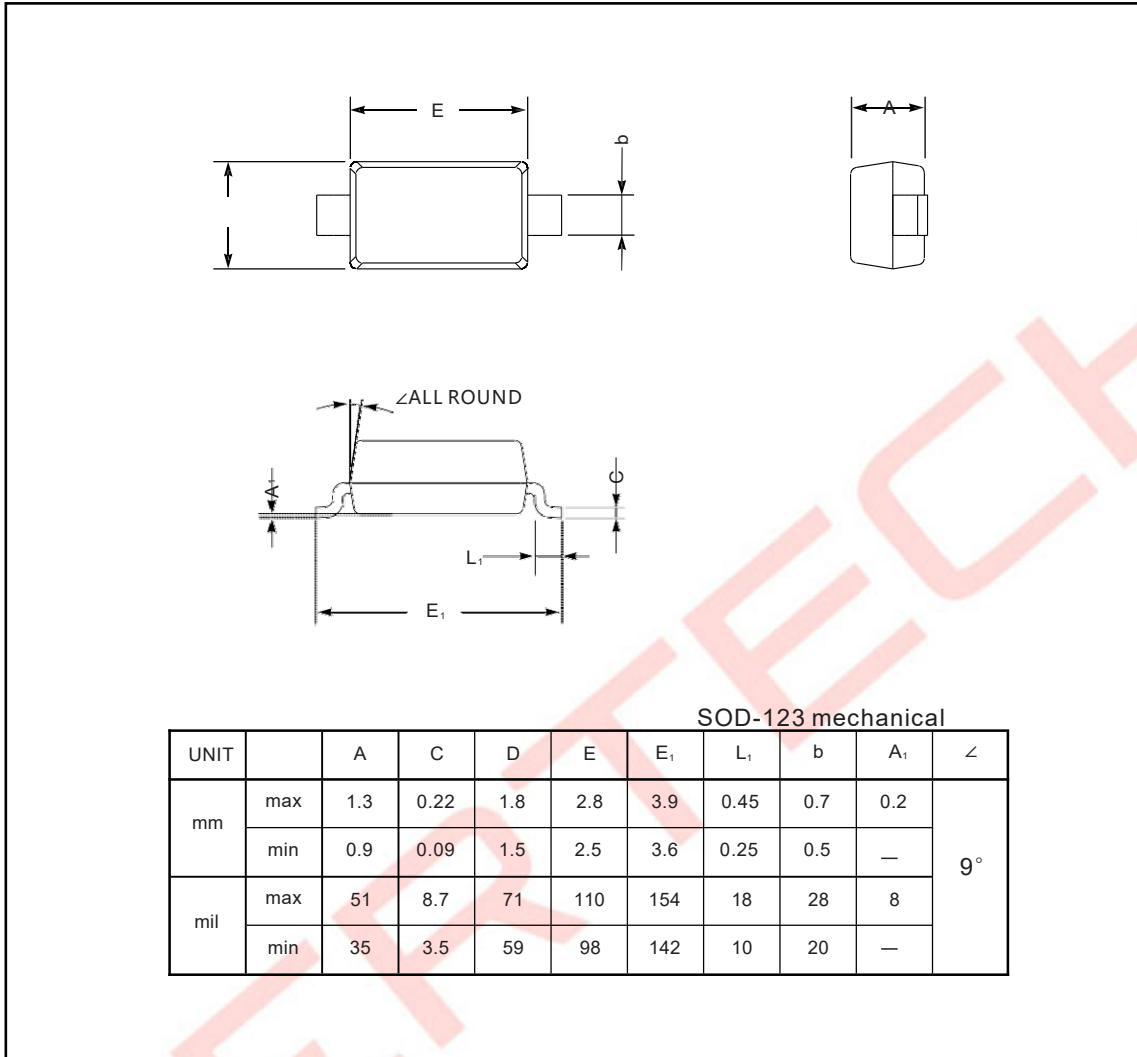
Type	Marking	Zener Voltage Range <sup>(1)</sup>			I <sub>ZT</sub> (mA)	Dynamic Impedance Z <sub>ZT</sub> (WAT Max (Ω))	Reverse Current	
		V <sub>ZT</sub> (WAT I <sub>ZT</sub> )					I <sub>R</sub> Max (μA)	WAT V <sub>R</sub> (V)
		Min (V)	Nom (V)	Max (V)				
MM1Z2V0WAT	4A	1.8	2.0	2.15	5	100	120	0.5
MM1Z2V2WAT	4B	2.08	2.2	2.33	5	100	120	0.7
MM1Z2V4WAT	4C	2.28	2.4	2.56	5	100	120	1
MM1Z2V7WAT	4D	2.5	2.7	2.9	5	110	120	1
MM1Z3V0WAT	4E	2.8	3.0	3.2	5	120	50	1
MM1Z3V3WAT	4F	3.1	3.3	3.5	5	130	20	1
MM1Z3V6WAT	4H	3.4	3.6	3.8	5	130	10	1
MM1Z3V9WAT	4J	3.7	3.9	4.1	5	130	5	1
MM1Z4V3WAT	4K	4	4.3	4.6	5	130	5	1
MM1Z4V7WAT	4M	4.4	4.7	5	5	130	2	1
MM1Z5V1WAT	4N	4.8	5.1	5.4	5	130	2	1.5
MM1Z5V6WAT	4P	5.2	5.6	6	5	80	1	2.5
MM1Z6V2WAT	4R	5.8	6.2	6.6	5	50	1	3
MM1Z6V8WAT	4X	6.4	6.8	7.2	5	30	0.5	3.5
MM1Z7V5WAT	4Y	7	7.5	7.9	5	30	0.5	4
MM1Z8V2WAT	4Z	7.7	8.2	8.7	5	30	0.5	5
MM1Z9V1WAT	5A	8.5	9.1	9.6	5	30	0.5	6
MM1Z10WAT	5B	9.4	10	10.6	5	30	0.1	7
MM1Z11WAT	5C	10.4	11	11.6	5	30	0.1	8
MM1Z12WAT	5D	11.4	12	12.7	5	35	0.1	9
MM1Z13WAT	5E	12.4	13	14.1	5	35	0.1	10
MM1Z15WAT	5F	13.8	15	15.6	5	40	0.1	11
MM1Z16WAT	5H	15.3	16	17.1	5	40	0.1	12
MM1Z18WAT	5J	16.8	18	19.1	5	45	0.1	13
MM1Z20WAT	5K	18.8	20	21.2	5	50	0.1	15
MM1Z22WAT	5M	20.8	22	23.3	5	55	0.1	17
MM1Z24WAT	5N	22.8	24	25.6	5	60	0.1	19
MM1Z27WAT	5P	25.1	27	28.9	5	70	0.1	21
MM1Z30WAT	5R	28	30	32	5	80	0.1	23
MM1Z33WAT	5X	31	33	35	5	80	0.1	25
MM1Z36WAT	5Y	34	36	38	5	90	0.1	27
MM1Z39WAT	5Z	37	39	41	2.5	100	2	30
MM1Z43WAT	6A	40	43	46	2.5	130	2	33
MM1Z47WAT	6B	44	47	50	2.5	150	2	36
MM1Z51WAT	6C	48	51	54	2.5	180	1	39
MM1Z56WAT	6D	52	56	60	2.5	180	1	43
MM1Z62WAT	6E	58	62	66	2.5	200	0.2	47
MM1Z68WAT	6F	64	68	72	2.5	250	0.2	52
MM1Z75WAT	6H	70	75	79	2.5	300	0.2	57

(1) V<sub>ZT</sub> is tested with pulses (20 ms)

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## Package Outline

SOD-123W



### The recommended mounting pad size

