



Features

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



SOD-123



Package Marking and Ordering Information

Product ID	Pack	Marking	Qty(PCS)
MM1Zxx	SOD-123	XX	3000

XX=Device code, see table on page2 the marking code.

The marking bar indicates the cathode.

Absolute Maximum Ratings($T_a=25^{\circ}\text{C}$)

Characteristic	Symbol	Value	Unit
Forward voltage @ $I_F=10\text{mA}$	V_F	0.9	V
Power Dissipation	P_D	500	mW
Thermal Resistance, Junction to Ambient Air	$R_{\theta JA}$	340	$^{\circ}\text{C/W}$
Junction Temperature	T_j	150	$^{\circ}\text{C}$
Storage Temperature Range	T_{stg}	-55 ~ +150	$^{\circ}\text{C}$

Notes: Device mounted on ceramic PCB;5.0mm×7.0mm with pad areas 35 mm²



Electrical Characteristics (Ta=25°C unless otherwise specified)

Type	Marking	Zener Voltage Range ⁽¹⁾			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)
MM1Z2V0	4A	1.8	2.0	2.15	5	100	120	0.5
MM1Z2V2	4B	2.08	2.2	2.33	5	100	120	0.7
MM1Z2V4	4C	2.28	2.4	2.56	5	100	120	1
MM1Z2V7	4D	2.5	2.7	2.9	5	110	120	1
MM1Z3V0	4E	2.8	3.0	3.2	5	120	50	1
MM1Z3V3	4F	3.1	3.3	3.5	5	130	20	1
MM1Z3V6	4H	3.4	3.6	3.8	5	130	10	1
MM1Z3V9	4J	3.7	3.9	4.1	5	130	5	1
MM1Z4V3	4K	4	4.3	4.6	5	130	5	1
MM1Z4V7	4M	4.4	4.7	5	5	130	2	1
MM1Z5V1	4N	4.8	5.1	5.4	5	130	2	1.5
MM1Z5V6	4P	5.2	5.6	6	5	80	1	2.5
MM1Z6V2	4R	5.8	6.2	6.6	5	50	1	3
MM1Z6V8	4X	6.4	6.8	7.2	5	30	0.5	3.5
MM1Z7V5	4Y	7	7.5	7.9	5	30	0.5	4
MM1Z8V2	4Z	7.7	8.2	8.7	5	30	0.5	5
MM1Z9V1	5A	8.5	9.1	9.6	5	30	0.5	6
MM1Z10	5B	9.4	10	10.6	5	30	0.1	7
MM1Z11	5C	10.4	11	11.6	5	30	0.1	8
MM1Z12	5D	11.4	12	12.7	5	35	0.1	9
MM1Z13	5E	12.4	13	14.1	5	35	0.1	10
MM1Z15	5F	13.8	15	15.6	5	40	0.1	11
MM1Z16	5H	15.3	16	17.1	5	40	0.1	12
MM1Z18	5J	16.8	18	19.1	5	45	0.1	13
MM1Z20	5K	18.8	20	21.2	5	50	0.1	15
MM1Z22	5M	20.8	22	23.3	5	55	0.1	17
MM1Z24	5N	22.8	24	25.6	5	60	0.1	19
MM1Z27	5P	25.1	27	28.9	5	70	0.1	21
MM1Z30	5R	28	30	32	5	80	0.1	23
MM1Z33	5X	31	33	35	5	80	0.1	25
MM1Z36	5Y	34	36	38	5	90	0.1	27
MM1Z39	5Z	37	39	41	2.5	100	2	30
MM1Z43	6A	40	43	46	2.5	130	2	33
MM1Z47	6B	44	47	50	2.5	150	2	36
MM1Z51	6C	48	51	54	2.5	180	1	39
MM1Z56	6D	52	56	60	2.5	180	1	43
MM1Z62	6E	58	62	66	2.5	200	0.2	47
MM1Z68	6F	64	68	72	2.5	250	0.2	52
MM1Z75	6H	70	75	79	2.5	300	0.2	57

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



Typical Characteristics

Fig.1 Maximum Continuous Power Derating

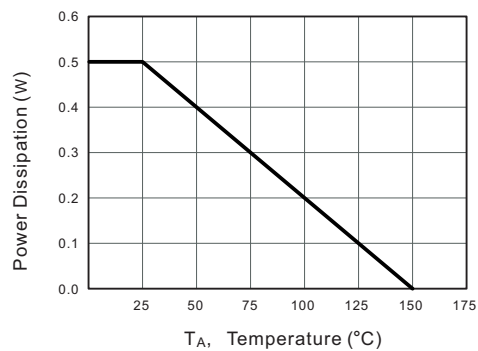
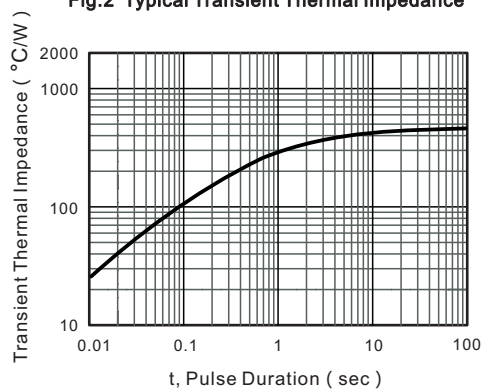
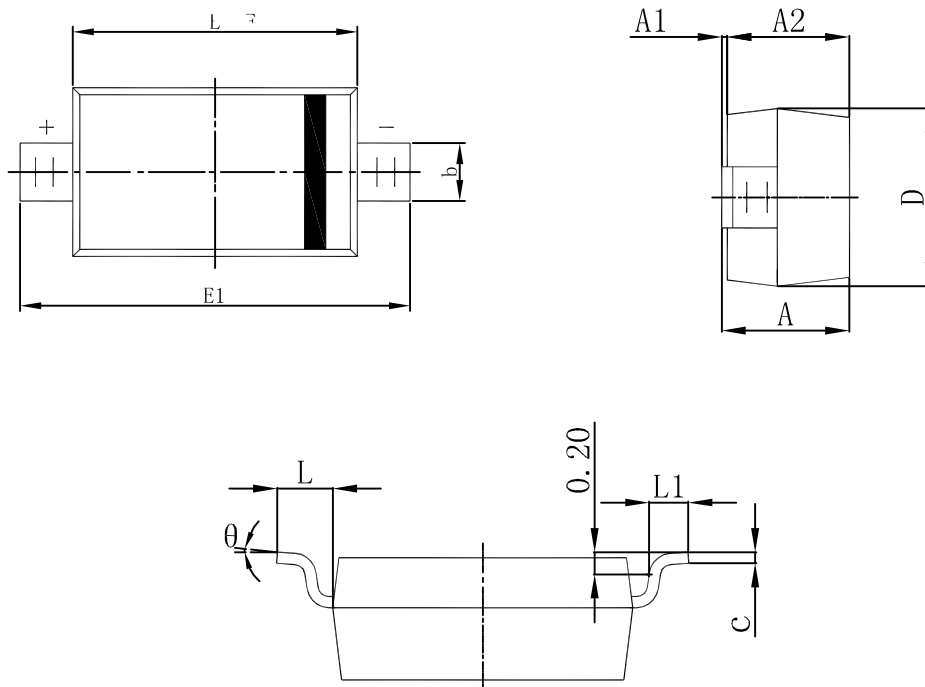


Fig.2 Typical Transient Thermal Impedance





SOD-123 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.450	0.650	0.018	0.026
c	0.080	0.150	0.003	0.006
D	1.500	1.700	0.059	0.067
E	2.600	2.800	0.102	0.110
E1	3.550	3.850	0.140	0.152
L	0.500 REF		0.020 REF	
L1	0.250	0.450	0.010	0.018
θ	0°	8°	0°	8°



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