

Zener Diodes SOD-123 Package

MM1Z Series

MERITEK

FEATURE

- Operating Temperature: -55°C ~ +150°C
- Storage Temperature: -55°C ~ +150°C
- 500mW Max. total power dissipation
- Small plastic package suitable for surface mounted design
- Tolerance approximately ±5%



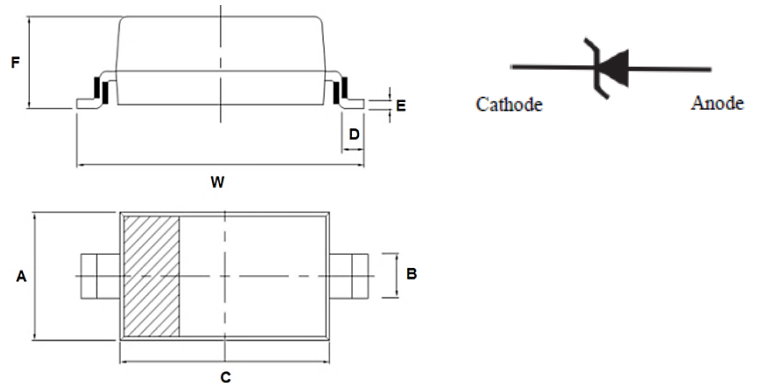
ELECTRICAL CHARACTERISTICS

Parameter	Symbols	Value	Unit
Power Dissipation	P_{tot}	500	mW
Forward Voltage at $I_F = 10\text{mA}$	V_F	0.9	V
Junction temperature	T_J	150	°C
Storage temperature range	T_{STG}	-55 to +150	°C

Note: Maximum ratings @ 25°C unless otherwise specified.

DIMENSIONS

Item	SOD-123	
	Millimeters	
	Min.	Max.
W	3.50	3.80
A	1.50	1.70
B	0.50	0.70
C	2.54	2.70
D	0.20	0.40
E	0.08	0.14
F	0.91	1.21



ELECTRICAL CHARACTERISTICS(Continued)

Type	Marking Code	Normal Zener Voltage $V_Z @ I_{ZT}$			I_{ZT} (mA)	$Z_{ZT} @ I_{ZT}$ Max. (Ω)	I_{ZK} (mA)	$I_R @ V_R$ Max. (μA)	V_R (V)
		Min.(V)	Nom.(V)	Max.(V)					
MM1Z2V0G	4A	1.80	2.0	2.15	5	100	5	120.0	0.5
MM1Z2V2G	4B	2.08	2.2	2.33	5	100	5	120.0	0.7
MM1Z2V4G	4C	2.28	2.4	2.56	5	100	5	120.0	1.0
MM1Z2V7G	4D	2.50	2.7	2.90	5	110	5	120.0	1.0
MM1Z3V0G	4E	2.80	3.0	3.20	5	120	5	50.0	1.0
MM1Z3V3G	4F	3.10	3.3	3.50	5	130	5	20.0	1.0
MM1Z3V6G	4H	3.40	3.6	3.80	5	130	5	10.0	1.0
MM1Z3V9G	4J	3.70	3.9	4.10	5	130	5	5.0	1.0
MM1Z4V3G	4K	4.00	4.3	4.60	5	130	5	5.0	1.0

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ELECTRICAL CHARACTERISTICS(Continued)

Type	Marking Code	Normal Zener Voltage $V_Z@I_{ZT}$			I_{ZT} (mA)	$Z_{ZT}@I_{ZT}$ Max. (Ω)	I_{ZK} (mA)	$I_R @ V_R$ Max. (μA)	V_R (V)
		Min.(V)	Nom.(V)	Max.(V)					
MM1Z4V7G	4M	4.40	4.7	5.00	5	130	5	2.0	1.0
MM1Z5V1G	4N	4.80	5.1	5.40	5	130	5	2.0	1.5
MM1Z5V6G	4P	5.20	5.6	6.00	5	80	5	1.0	2.5
MM1Z6V2G	4R	5.80	6.2	6.60	5	50	5	1.0	3.0
MM1Z6V8G	4X	6.40	6.8	7.20	5	30	5	0.5	3.5
MM1Z7V5G	4Y	7.00	7.5	7.90	5	30	5	0.5	4.0
MM1Z8V2G	4Z	7.70	8.2	8.70	5	30	5	0.5	5.0
MM1Z9V1G	5A	8.50	9.1	9.60	5	30	5	0.5	6.0
MM1Z10G	5B	9.40	10	10.60	5	30	5	0.1	7.0
MM1Z11G	5C	10.40	11	11.60	5	30	5	0.1	8.0
MM1Z12G	5D	11.40	12	12.70	5	35	5	0.1	9.0
MM1Z13G	5E	12.40	13	14.10	5	35	5	0.1	10.0
MM1Z15G	5F	13.80	15	15.60	5	40	5	0.1	11.0
MM1Z16G	5H	15.30	16	17.10	5	40	5	0.1	12.0
MM1Z18G	5J	16.80	18	19.10	5	45	5	0.1	13.0
MM1Z20G	5K	18.80	20	21.20	5	50	5	0.1	15.0
MM1Z22G	5M	20.80	22	23.30	5	55	5	0.1	17.0
MM1Z24G	5N	22.80	24	25.60	5	60	5	0.1	19.0
MM1Z27G	5P	25.10	27	28.90	5	70	2	0.1	21.0
MM1Z30G	5R	28.00	30	32.00	5	80	2	0.1	23.0
MM1Z33G	5X	31.00	33	35.00	5	80	2	0.1	25.0
MM1Z36G	5Y	34.00	36	38.00	5	90	2	0.1	27.0
MM1Z39G	5Z	37.00	39	41.00	2.5	100	2	2.0	30.0
MM1Z43G	6A	40.00	43	46.00	2.5	130	2	2.0	33.0
MM1Z47G	6B	44.00	47	50.00	2.5	150	2	2.0	36.0
MM1Z51G	6C	48.00	51	54.00	2.5	180	2	1.0	39.0
MM1Z56G	6D	52.00	56	60.00	2.5	180	2	1.0	43.0
MM1Z62G	6E	58.00	62	66.00	2.5	200	2	0.2	47.0
MM1Z68G	6F	64.00	68	72.00	2.5	250	2	0.2	52.0
MM1Z75G	6H	70.00	75	79.00	2.5	300	2	0.2	57.0

Note: The Zener Voltage (V_Z) is tested under pulse condition of 20ms. Z_{ZT} is measured at I_Z by given a very small A.C. current signal.

CHARACTERISTICS CURVES

Fig.1 Breakdown characteristics (2.7V ~ 8.2V)

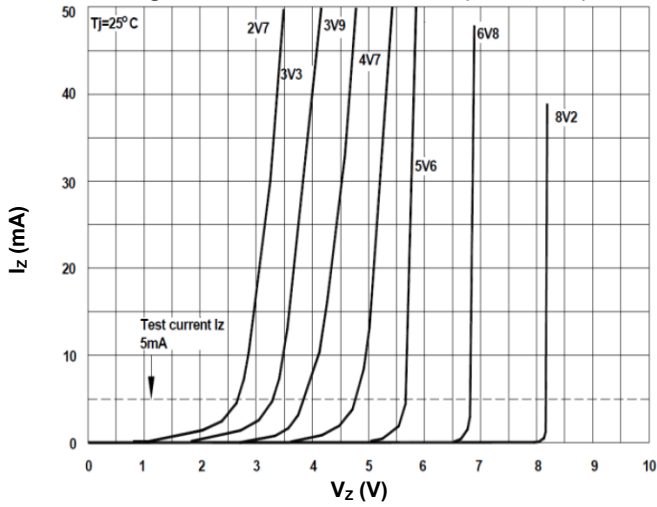


Fig 2. Breakdown characteristics (10V ~ 33V)

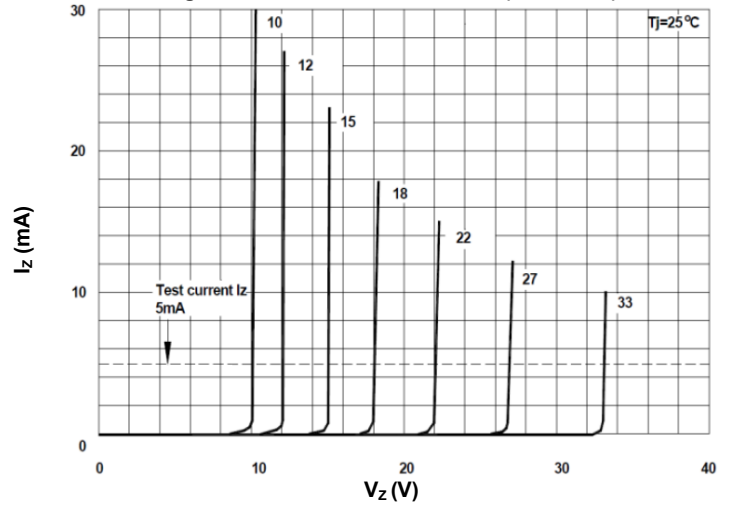
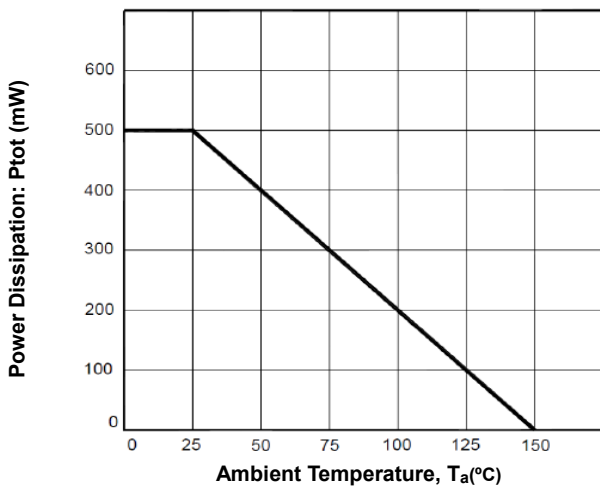


Fig 3. Power Dissipation vs Ambient Temperature



*Specifications subject to change without notice.