



Features

- Planar Die Construction
- 500mW Power Dissipation on Ceramic PCB
- General Purpose, Medium Current
- Ideally Suited for Automated Assembly Processes
- Available in Lead Free Version



SOD-123

Package Marking and Ordering Information

Product ID	Pack	Marking	Qty(PCS)
MMSZ5221-5259BT1G	SOD-123	XX	3000

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

The marking bar indicates the cathode.



Absolute Maximum Ratings(Ta=25°C)

Characteristic	Symbol	Value	Unit
Forward voltage @I _F =10mA	V _F	0.85	V
Power Dissipation	P _D	500	mW
Thermal Resistance, Junction to Ambient Air	R _{θJA}	556	°C/W
Junction Temperature	T _j	150	°C
Storage Temperature Range	T _{stg}	-55 ~ +150	°C

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

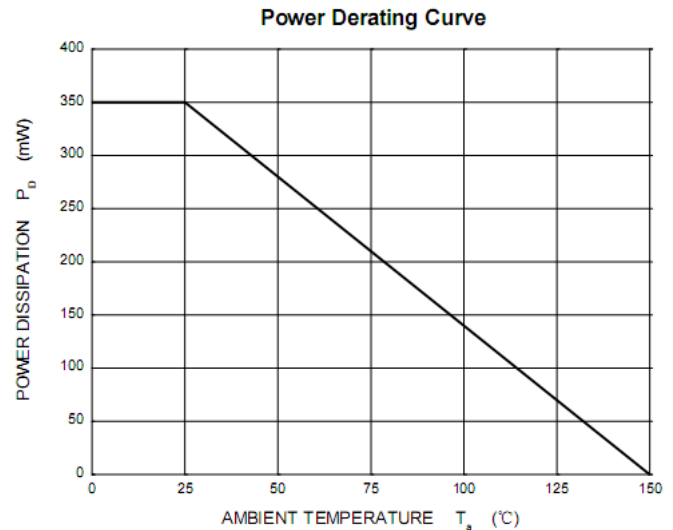
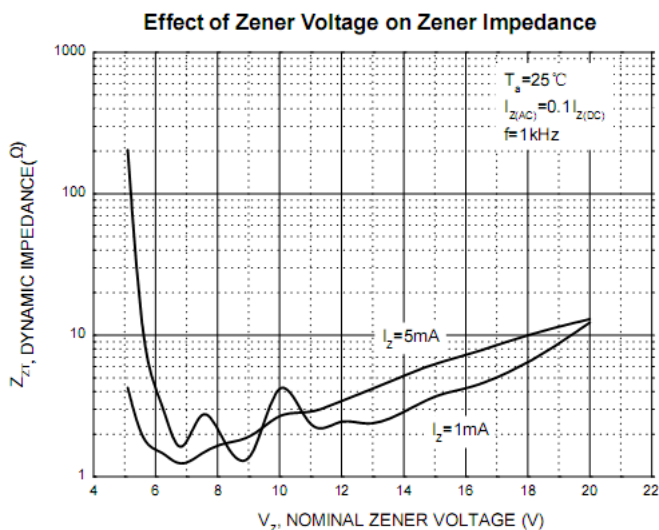
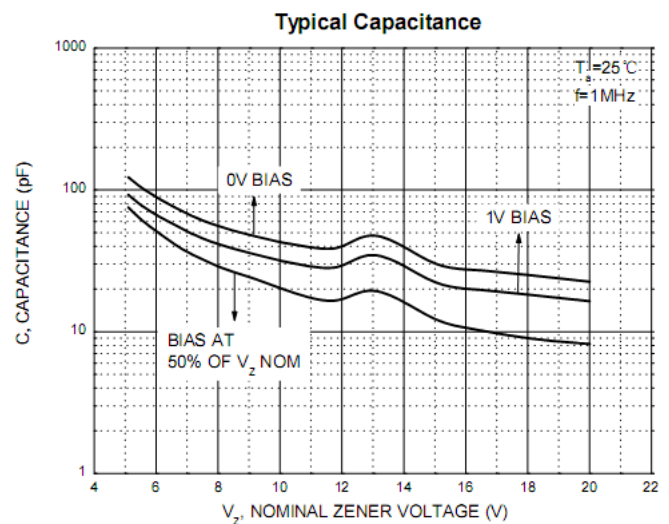
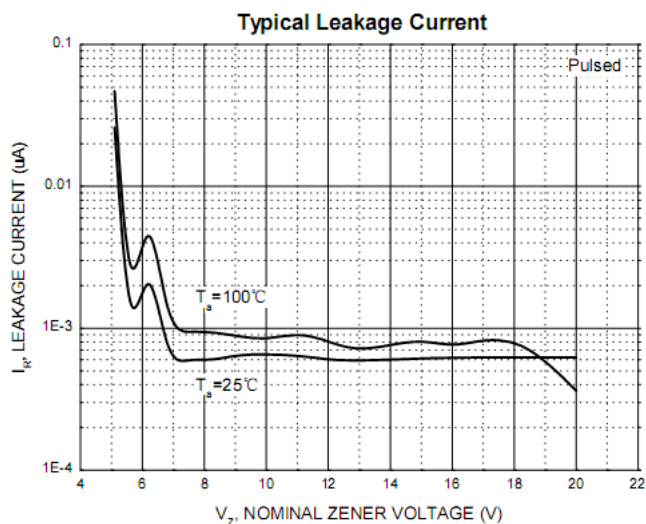
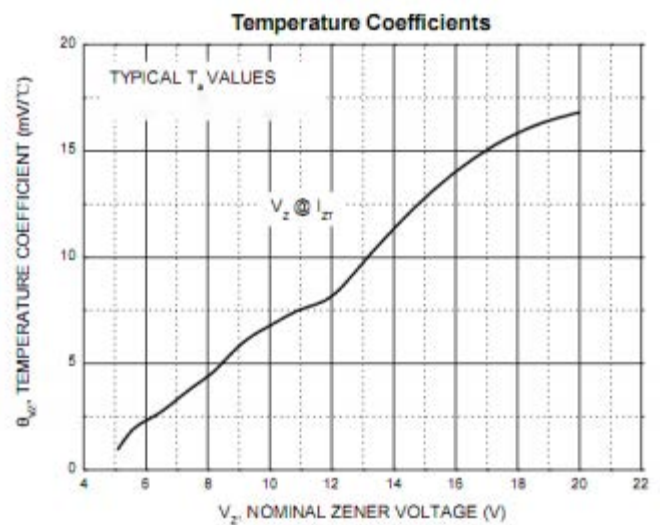
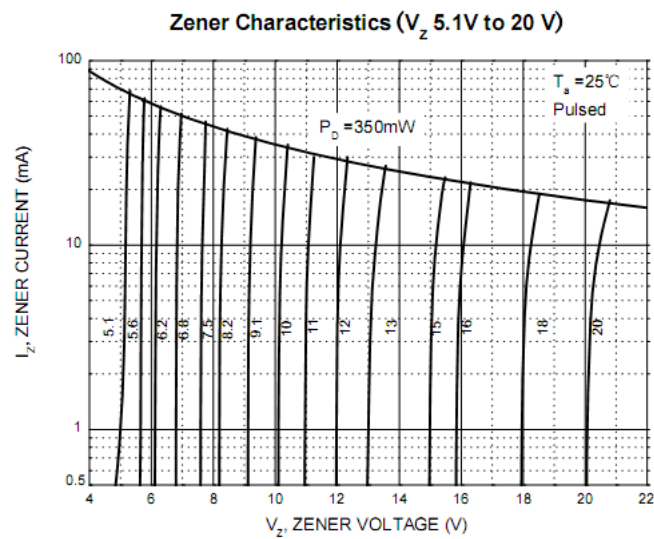


Electrical Characteristics (Ta=25℃ unless otherwise specified)

Type Number	Code	Zener Voltage Range (Note 2)				Maximum Zener Impedance (Note 4)			Maximum Reverse Current	
		V _Z @I _{ZT}			I _{ZT}	Z _{VT} @I _{ZT}	Z _{ZK} @I _{ZK}	I _{ZK}	I _R	V _R
		Nom(V)	Min(V)	Max(V)	mA	Ω		mA	μA	V
MMSZ5221BT1G	C1	2.4	2.28	2.52	20	30	1200	0.25	100	1.0
MMSZ5223BT1G	C3	2.7	2.57	2.84	20	30	1300	0.25	75	1.0
MMSZ5225BT1G	C5	3.0	2.85	3.15	20	30	1600	0.25	50	1.0
MMSZ5226BT1G	G1	3.3	3.14	3.47	20	28	1600	0.25	25	1.0
MMSZ5227BT1G	G2	3.6	3.42	3.78	20	24	1700	0.25	15	1.0
MMSZ5228BT1G	G3	3.9	3.71	4.10	20	23	1900	0.25	10	1.0
MMSZ5229BT1G	G4	4.3	4.09	4.52	20	22	2000	0.25	5	1.0
MMSZ5230BT1G	G5	4.7	4.47	4.94	20	19	1900	0.25	5	2.0
MMSZ5231BT1G	E1	5.1	4.85	5.36	20	17	1600	0.25	5	2.0
MMSZ5232BT1G	E2	5.6	5.32	5.88	20	11	1600	0.25	5	3.0
MMSZ5233BT1G	E3	6.0	5.70	6.30	20	7	1600	0.25	5	3.5
MMSZ5234BT1G	E4	6.2	5.89	6.51	20	7	1000	0.25	5	4.0
MMSZ5235BT1G	E5	6.8	6.46	7.14	20	5	750	0.25	3	5.0
MMSZ5236BT1G	F1	7.5	7.13	7.88	20	6	500	0.25	3	6.0
MMSZ5237BT1G	F2	8.2	7.79	8.61	20	8	500	0.25	3	6.5
MMSZ5238BT1G	F3	8.7	8.27	9.14	20	8	600	0.25	3	6.5
MMSZ5239BT1G	F4	9.1	8.65	9.56	20	10	600	0.25	3	7.0
MMSZ5240BT1G	F5	10	9.50	10.50	20	17	600	0.25	3	8.0
MMSZ5241BT1G	H1	11	10.45	11.55	20	22	600	0.25	2.0	8.4
MMSZ5242BT1G	H2	12	11.40	12.60	20	30	600	0.25	1.0	9.1
MMSZ5243BT1G	H3	13	12.35	13.65	9.5	13	600	0.25	0.5	9.9
MMSZ5244BT1G	H4	14	13.30	14.70	9.0	15	600	0.25	0.1	10
MMSZ5245BT1G	H5	15	14.25	15.75	8.5	16	600	0.25	0.1	11
MMSZ5246BT1G	J1	16	15.20	16.80	7.8	17	600	0.25	0.1	12
MMSZ5247BT1G	J2	17	16.15	17.85	7.4	19	600	0.25	0.1	13
MMSZ5248BT1G	J3	18	17.10	18.90	7.0	21	600	0.25	0.1	14
MMSZ5250BT1G	J5	20	19.00	21.00	6.2	25	600	0.25	0.1	15
MMSZ5251BT1G	K1	22	20.90	23.10	5.6	29	600	0.25	0.1	17
MMSZ5252BT1G	K2	24	22.80	25.20	5.2	33	600	0.25	0.1	18
MMSZ5253BT1G	K3	25	23.75	26.25	5.0	35	600	0.25	0.1	19
MMSZ5254BT1G	K4	27	25.65	28.35	5.0	41	600	0.25	0.1	21
MMSZ5255BT1G	K5	28	26.60	29.40	4.5	44	600	0.25	0.1	21
MMSZ5256BT1G	M1	30	28.50	31.50	4.2	49	600	0.25	0.1	23
MMSZ5257BT1G	M2	33	31.35	34.65	3.8	58	700	0.25	0.1	25
MMSZ5258BT1G	M3	36	34.20	37.80	3.4	70	700	0.25	0.1	27
MMSZ5259BT1G	M4	39	37.05	40.95	3.2	80	800	0.25	0.1	30

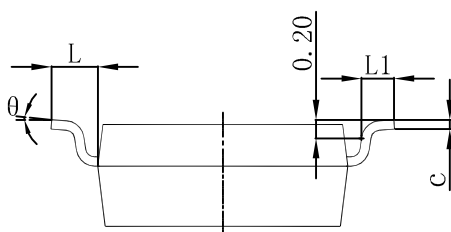
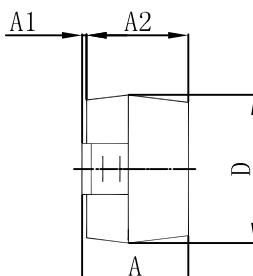
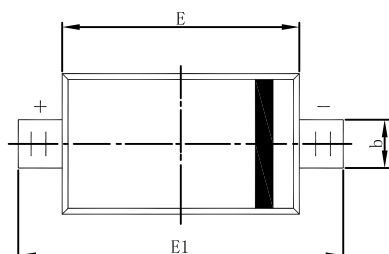


Typical Characteristics

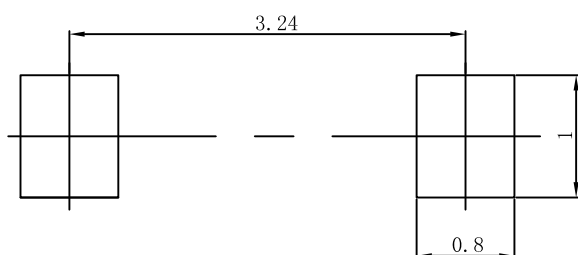




SOD-123 Package Outline Dimensions



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°



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.



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