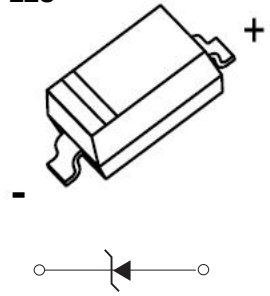


SOD-123 Plastic-Encapsulate Diodes**MMSZ5221B-MMSZ5259B**

Zener Diodes

SOD-123

**FEATURES**

- Zener Voltages From 2.4V - 39V
- 500mW Power Dissipation
- Planar Die Construction

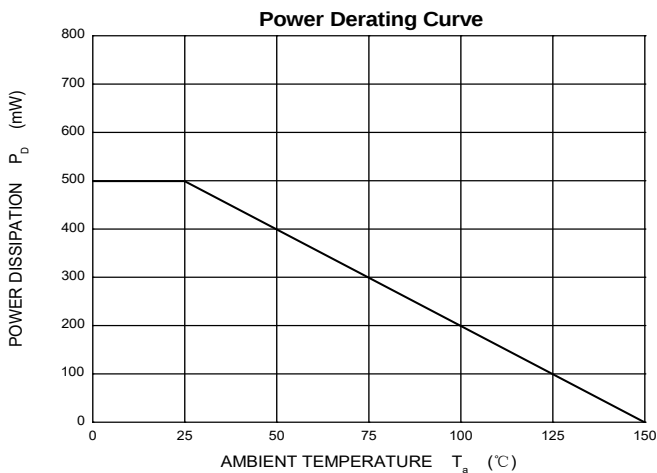
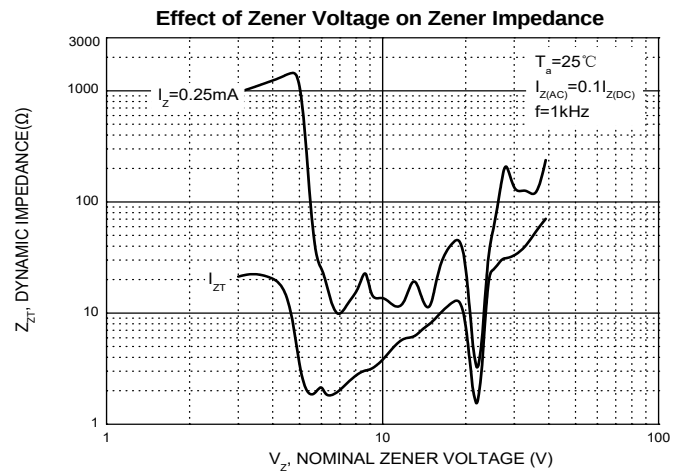
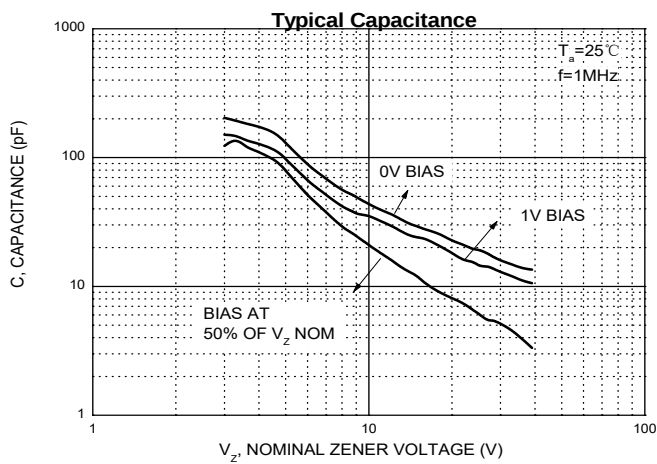
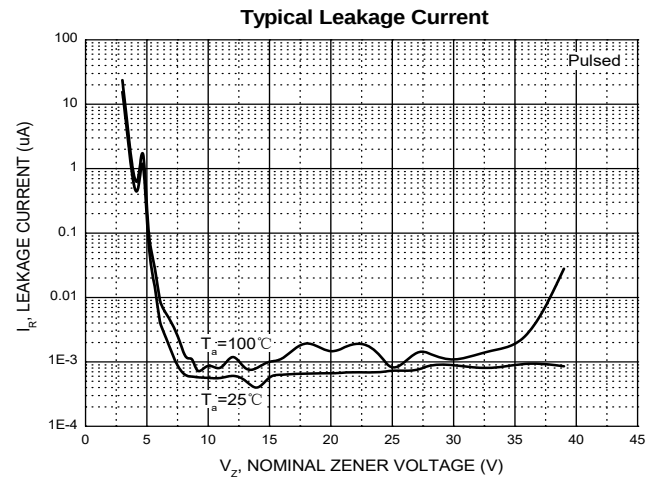
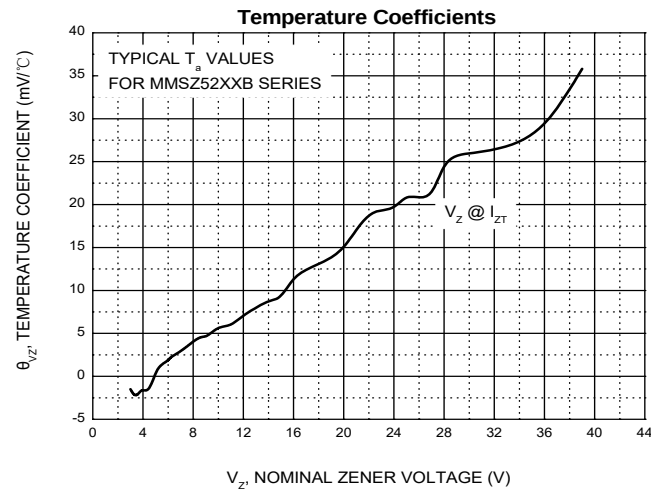
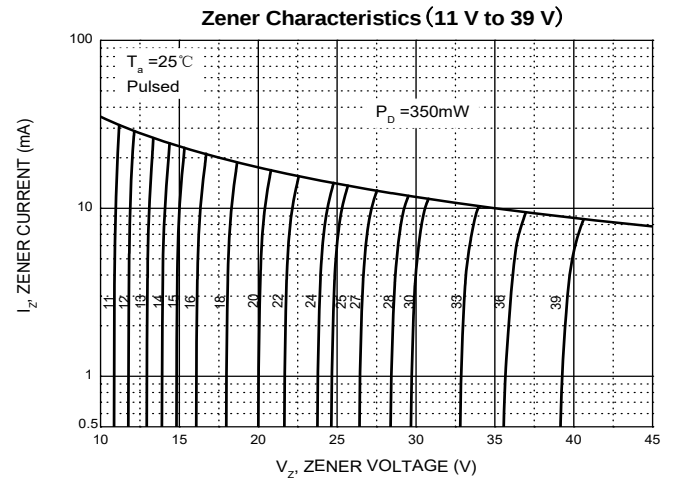
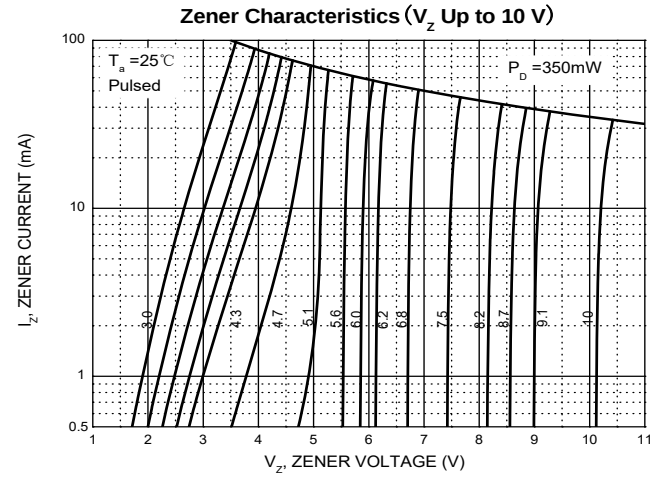
MAXIMUM RATINGS ($T_a=25^{\circ}\text{C}$ unless otherwise noted)

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	$R_{\theta JA}$	250	$^{\circ}\text{C/W}$
Operation Junction and Storage Temperature Range	T_J, T_{stg}	-55~+150	

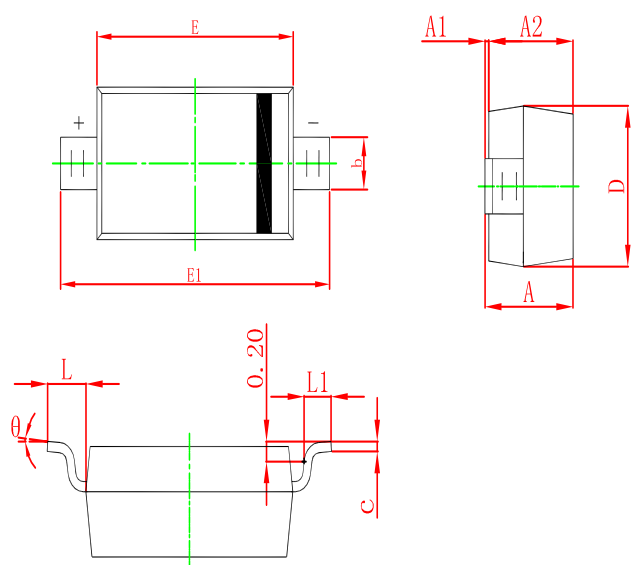
ELECTRICAL CHARACTERISTICS ($T_a=25^{\circ}\text{C}$ unless otherwise specified)

Type Number	Code	Zener Voltage Range				Maximum Zener Impedance			Maximum Reverse Current	
		$V_Z @ I_{ZT}$			I_{ZT}	$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$	I_{ZK}	I_R	V_R
		Nom(V)	Min(V)	Max(V)	mA	Ω		mA	μA	V
MMSZ5221B	C1	2.4	2.28	2.52	20	30	1200	0.25	100	1.0
MMSZ5223B	C3	2.7	2.57	2.84	20	30	1300	0.25	75	1.0
MMSZ5225B	C5	3.0	2.85	3.15	20	30	1600	0.25	50	1.0
MMSZ5226B	G1	3.3	3.14	3.47	20	28	1600	0.25	25	1.0
MMSZ5227B	G2	3.6	3.42	3.78	20	24	1700	0.25	15	1.0
MMSZ5228B	G3	3.9	3.71	4.10	20	23	1900	0.25	10	1.0
MMSZ5229B	G4	4.3	4.09	4.52	20	22	2000	0.25	5	1.0
MMSZ5230B	G5	4.7	4.47	4.94	20	19	1900	0.25	5	2.0
MMSZ5231B	E1	5.1	4.85	5.36	20	17	1600	0.25	5	2.0
MMSZ5232B	E2	5.6	5.32	5.88	20	11	1600	0.25	5	3.0
MMSZ5233B	E3	6.0	5.70	6.30	20	7	1600	0.25	5	3.5
MMSZ5234B	E4	6.2	5.89	6.51	20	7	1000	0.25	5	4.0
MMSZ5235B	E5	6.8	6.46	7.14	20	5	750	0.25	3	5.0
MMSZ5236B	F1	7.5	7.13	7.88	20	6	500	0.25	3	6.0
MMSZ5237B	F2	8.2	7.79	8.61	20	8	500	0.25	3	6.5
MMSZ5238B	F3	8.7	8.27	9.14	20	8	600	0.25	3	6.5
MMSZ5239B	F4	9.1	8.65	9.56	20	10	600	0.25	3	7.0
MMSZ5240B	F5	10	9.50	10.50	20	17	600	0.25	3	8.0
MMSZ5241B	H1	11	10.45	11.55	20	22	600	0.25	2.0	8.4
MMSZ5242B	H2	12	11.40	12.60	20	30	600	0.25	1.0	9.1
MMSZ5243B	H3	13	12.35	13.65	9.5	13	600	0.25	0.5	9.9
MMSZ5244B	H4	14	13.30	14.70	9.0	15	600	0.25	0.1	10
MMSZ5245B	H5	15	14.25	15.75	8.5	16	600	0.25	0.1	11
MMSZ5246B	J1	16	15.20	16.80	7.8	17	600	0.25	0.1	12
MMSZ5247B	J2	17	16.15	17.85	7.4	19	600	0.25	0.1	13
MMSZ5248B	J3	18	17.10	18.90	7.0	21	600	0.25	0.1	14
MMSZ5250B	J5	20	19.00	21.00	6.2	25	600	0.25	0.1	15
MMSZ5251B	K1	22	20.90	23.10	5.6	29	600	0.25	0.1	17
MMSZ5252B	K2	24	22.80	25.20	5.2	33	600	0.25	0.1	18
MMSZ5253B	K3	25	23.75	26.25	5.0	35	600	0.25	0.1	19
MMSZ5254B	K4	27	25.65	28.35	5.0	41	600	0.25	0.1	21
MMSZ5255B	K5	28	26.60	29.40	4.5	44	600	0.25	0.1	21
MMSZ5256B	M1	30	28.50	31.50	4.2	49	600	0.25	0.1	23
MMSZ5257B	M2	33	31.35	34.65	3.8	58	700	0.25	0.1	25
MMSZ5258B	M3	36	34.20	37.80	3.4	70	700	0.25	0.1	27
MMSZ5259B	M4	39	37.05	40.95	3.2	80	800	0.25	0.1	30

Typical Characteristics

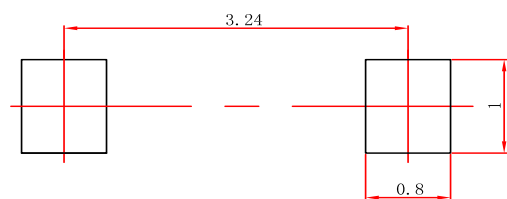


Package Outline Dimensions (SOD-123)



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°

Suggested Pad Layout (SOD-123)



Note:
1.Controlling dimension:in millimeters.
2.General tolerance:± 0.05mm.
3.The pad layout is for reference purposes only.