

SMT-Type Zener Diode

MMSZ5221B-MMSZ5267B

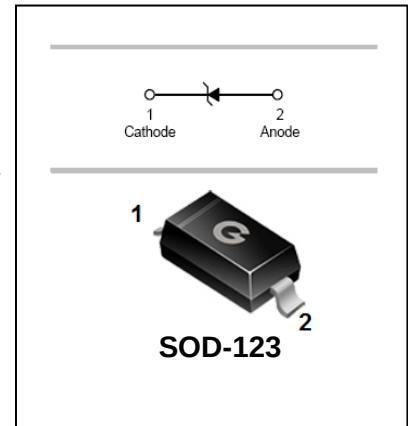
FEATURES

- Large selection of zener voltages: 2.4V ~ 75V
- Tight voltage tolerance: $\pm 5\%$ for B-series
- Ultra low-profile package well suited for automated assembly
- MSL Class 1 compatible

HF

Mechanical Data

- Molding compound: UL flammability classification rating 94V-0
- Terminals: Tin-plated; solderability per MIL-STD-202, Method 208



APPLICATIONS

- General voltage regulation
- Mobile & handheld systems

ORDERING INFORMATION

Part Number	Marking	Package
MMSZ5221B – MMSZ5267B	See Electrical Characteristics	SOD-123

MAXIMUM RATING (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

Parameter	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-Air ^{*1}	$R_{\theta JA}$	250	$^\circ\text{C/W}$
Thermal Resistance Junction-to-Case ^{*1}	$R_{\theta JC}$	150	$^\circ\text{C/W}$
Thermal Resistance Junction-to-Lead ^{*1}	$R_{\theta JL}$	180	$^\circ\text{C/W}$
Junction Temperature Range	T_J	-55 ~ +150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-65 ~ +150	$^\circ\text{C}$

Note 1: The data tested by surface mounted on a 1 inch² FR-4 board with 2OZ copper

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ELECTRICAL CHARACTERISTICS (@ T_A = 25°C unless otherwise specified)

Part Number	Marking Code	Zener Voltage V _Z (V)			@ I _{ZT} (mA)	Maximum Zener Impedance			Maximum Reverse Current I _R (μA)	@ V _R (V)
		Min.	Typ.	Max.		Z _{ZT} (Ω) @ I _{ZT}	Z _{ZK} (Ω)	@ I _{ZK} (mA)		
MMSZ5221B	C1	2.28	2.40	2.52	20	30	1200	0.25	100.000	1.0
MMSZ5222B	C2	2.38	2.50	2.63	20	30	1250	0.25	100.000	1.0
MMSZ5223B	C3	2.57	2.70	2.84	20	30	1300	0.25	75.000	1.0
MMSZ5225B	C5	2.85	3.00	3.15	20	30	1600	0.25	50.000	1.0
MMSZ5226B	G1	3.14	3.30	3.47	20	28	1600	0.25	25.000	1.0
MMSZ5227B	G2	3.42	3.60	3.78	20	24	1700	0.25	15.000	1.0
MMSZ5228B	G3	3.71	3.90	4.10	20	23	1900	0.25	10.000	1.0
MMSZ5229B	G4	4.09	4.30	4.52	20	22	2000	0.25	5.000	1.0
MMSZ5230B	G5	4.47	4.70	4.94	20	19	1900	0.25	5.000	2.0
MMSZ5231B	E1	4.85	5.10	5.36	20	17	1600	0.25	5.000	2.0
MMSZ5232B	E2	5.32	5.60	5.88	20	11	1600	0.25	5.000	3.0
MMSZ5233B	E3	5.70	6.00	6.30	20	7	1600	0.25	5.000	3.5
MMSZ5234B	E4	5.89	6.20	6.51	20	7	1000	0.25	5.000	4.0
MMSZ5235B	E5	6.46	6.80	7.14	20	5	750	0.25	3.000	5.0
MMSZ5236B	F1	7.13	7.50	7.88	20	6	500	0.25	3.000	6.0
MMSZ5237B	F2	7.79	8.20	8.61	20	8	500	0.25	3.000	6.5
MMSZ5238B	F3	8.27	8.70	9.14	20	8	600	0.25	3.000	6.5
MMSZ5239B	F4	8.65	9.10	9.56	20	10	600	0.25	3.000	7.0
MMSZ5240B	F5	9.50	10.00	10.50	20	17	600	0.25	3.000	8.0
MMSZ5241B	H1	10.45	11.00	11.55	20	22	600	0.25	2.000	8.4
MMSZ5242B	H2	11.40	12.00	12.60	20	30	600	0.25	1.000	9.1
MMSZ5243B	H3	12.35	13.00	13.65	9.5	13	600	0.25	0.500	9.9
MMSZ5244B	H4	13.30	14.00	14.70	9	15	600	0.25	0.100	10.0
MMSZ5245B	H5	14.25	15.00	15.75	8.5	16	600	0.25	0.100	11.0
MMSZ5246B	J1	15.20	16.00	16.80	7.8	17	600	0.25	0.100	12.0
MMSZ5247B	J2	16.15	17.00	17.85	7.5	19	600	0.25	0.100	13.0
MMSZ5248B	J3	17.10	18.00	18.90	7	21	600	0.25	0.100	14.0
MMSZ5250B	J5	19.00	20.00	21.00	6.2	25	600	0.25	0.100	15.0
MMSZ5251B	K1	20.90	22.00	23.10	5.6	29	600	0.25	0.100	17.0
MMSZ5252B	K2	22.80	24.00	25.20	5.2	33	600	0.25	0.100	18.0
MMSZ5253B	K3	23.75	25.00	26.25	5	35	600	0.25	0.100	19.0
MMSZ5254B	K4	25.65	27.00	28.35	5	41	600	0.25	0.100	21.0
MMSZ5255B	K5	26.60	28.00	29.40	4.5	44	600	0.25	0.100	21.0
MMSZ5256B	M1	28.50	30.00	31.50	4.2	49	600	0.25	0.100	23.0
MMSZ5257B	M2	31.35	33.00	34.65	3.8	58	700	0.25	0.100	25.0
MMSZ5258B	M3	34.20	36.00	37.80	3.4	70	700	0.25	0.100	27.0
MMSZ5259B	M4	37.05	39.00	40.95	3.2	80	800	0.25	0.100	30.0
MMSZ5260B	M5	40.85	43.00	45.15	3	93	900	0.25	0.100	33.0
MMSZ5261B	N1	44.65	47.00	49.35	2.7	105	1000	0.25	0.100	36.0
MMSZ5262B	N2	48.45	51.00	53.55	2.5	125	1100	0.25	0.100	39.0
MMSZ5263B	M8	53.20	56.00	58.80	2.2	150	1300	0.25	0.100	43.0
MMSZ5265B	N5	58.90	62.00	65.10	2	185	1400	0.25	0.100	47.0
MMSZ5266B	P1	64.60	68.00	71.40	1.8	230	1600	0.25	0.100	52.0
MMSZ5267B	P2	71.25	75.00	78.75	1.7	270	1700	0.25	0.100	56.0

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TYPICAL CHARACTERISTICS (@ $T_A = 25^\circ\text{C}$ unless otherwise specified)

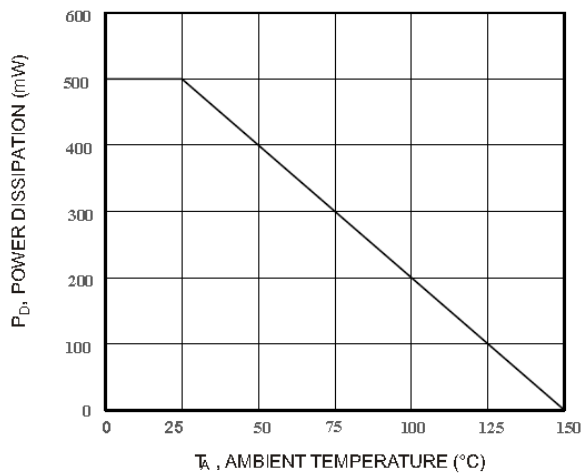


Fig. 1 Power Dissipation vs Ambient Temperature

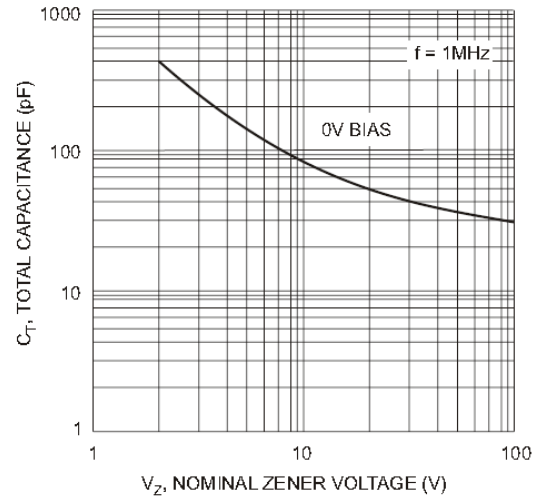


Fig. 2 Typical Capacitance

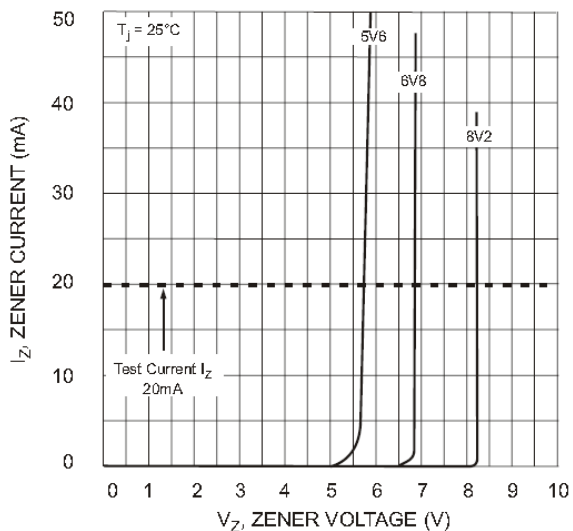


Fig. 3 Zener Breakdown Characteristics

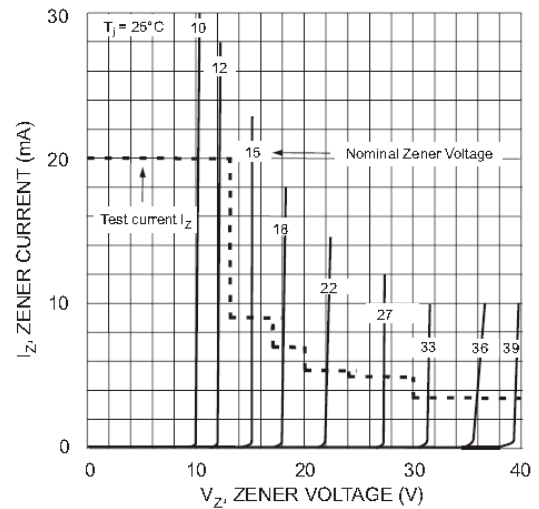


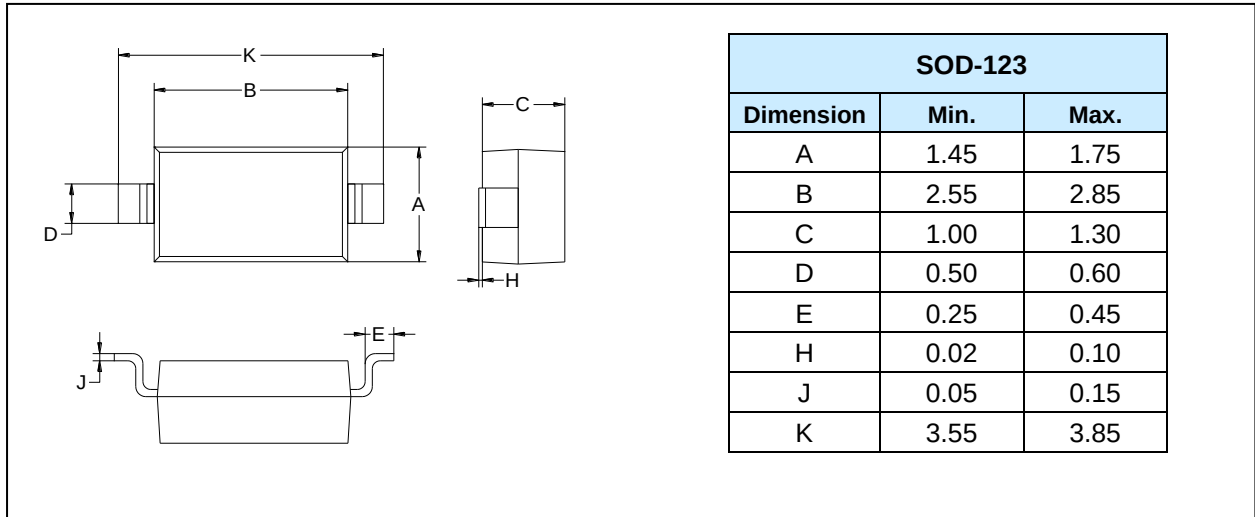
Fig. 4 Zener Breakdown Characteristics

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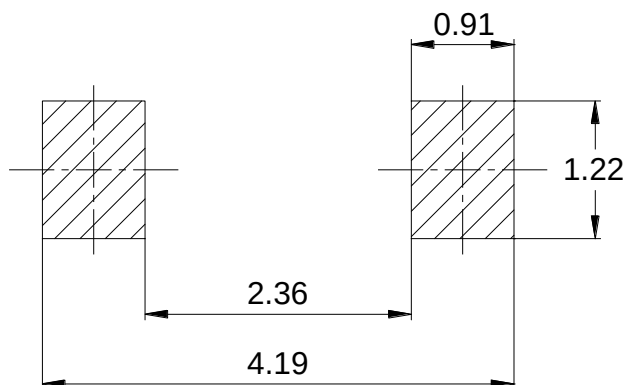
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PACKAGE OUTLINE (Unit: mm)

Plastic surface mounted package



MOUNTING PAD LAYOUT (Unit: mm)



PACKAGE INFORMATION

Part Number	Package	Shipping Quantity
MMSZ5221B – MMSZ5267B	SOD-123	3000pcs / Tape & Reel

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