



# MMSZ5221B SERIES

## SURFACE MOUNT SILICON ZENER DIODES

**VOLTAGE** 2.4 to 51 Volts

**POWER** 500 mWatts

SOD-123

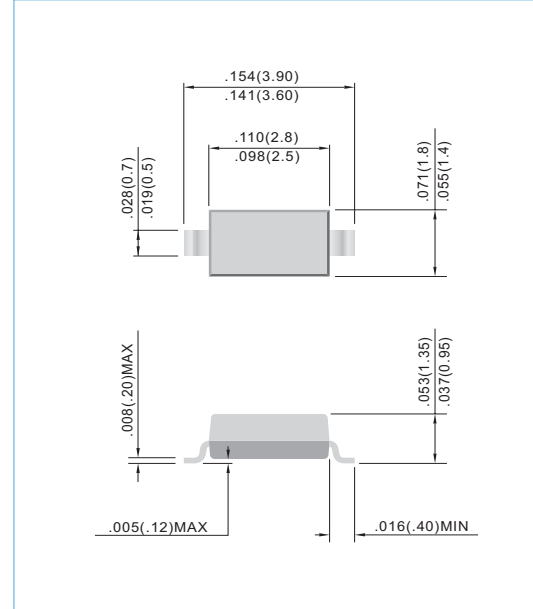
Unit: inch (mm)

### FEATURES

- Planar Die construction
- 500mW Power Dissipation
- Ideally Suited for Automated Assembly Processes
- In compliance with EU RoHS 2002/95/EC directives

### MECHANICAL DATA

- Case: SOD-123, Molded Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Polarity: See Diagram Below
- Approx. Weight: 0.01grams
- Mounting Position: Any



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Parameter	Symbol	Value	Units
Maximum Power Dissipation (Notes A) at 25°C	P <sub>D</sub>	500	mW
Operating Junction and Storage Temperature Range	T <sub>J</sub>	-55 to +150	°C

#### NOTES:

A. Mounted on 5.0mm<sup>2</sup> (.013mm thick) land areas.

B. Measured on 8.3ms, single half sine-wave or equivalent square wave, duty cycle = 4 pulses per minute maximum.



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Part Number	Nominal Zener Voltage			Max. Zener Impedance				Max Reverse Leakage Current		Marking Code
	V <sub>Z</sub> @ I <sub>ZT</sub>			Z <sub>TT</sub> @ I <sub>ZT</sub>		Z <sub>ZK</sub> @ I <sub>ZK</sub>		I <sub>R</sub> @ V <sub>R</sub>		
	Nom. V	Min. V	Max. V	Ω	mA	Ω	mA	μA	V	
500 mW Zener Diodes										
MMSZ5221B	2.4	2.28	2.52	30	20	1200	0.25	100	1	C1
MMSZ5222B	2.5	2.38	2.63	30	20	1250	0.25	100	1	C2
MMSZ5223B	2.7	2.57	2.84	30	20	1300	0.25	75	1	C3
MMSZ5225B	3	2.85	3.15	30	20	1600	0.25	50	1	C5
MMSZ5226B	3.3	3.14	3.47	28	20	1600	0.25	25	1	D1
MMSZ5227B	3.6	3.42	3.78	24	20	1700	0.25	15	1	D2
MMSZ5228B	3.9	3.71	4.1	23	20	1900	0.25	10	1	D3
MMSZ5229B	4.3	4.09	4.52	22	20	2000	0.25	5	1	D4
MMSZ5230B	4.7	4.47	4.94	19	20	1900	0.25	5	2	D5
MMSZ5231B	5.1	4.85	5.36	17	20	1600	0.25	5	2	E1
MMSZ5232B	5.6	5.32	5.88	11	20	1600	0.25	5	3	E2
MMSZ5234B	6.2	5.89	6.51	7	20	1000	0.25	5	4	E4
MMSZ5235B	6.8	6.46	7.14	5	20	750	0.25	3	5	E5
MMSZ5236B	7.5	7.13	7.88	6	20	500	0.25	3	6	F1
MMSZ5237B	8.2	7.79	8.61	8	20	500	0.25	3	6	F2
MMSZ5238B	8.7	8.27	9.14	8	20	600	0.25	3	6.5	F3
MMSZ5239B	9.1	8.65	9.56	10	20	600	0.25	3	6.5	F4
MMSZ5240B	10	9.5	10.5	17	20	600	0.25	3	8	F5
MMSZ5241B	11	10.45	11.55	22	20	600	0.25	2	8.4	H1
MMSZ5242B	12	11.4	12.6	30	20	600	0.25	1	9.1	H2
MMSZ5243B	13	12.35	13.65	13	9.5	600	0.25	0.5	9.9	H3
MMSZ5244B	14	13.3	14.7	15	9	600	0.25	0.1	10.5	H4
MMSZ5245B	15	14.25	15.75	16	8.5	600	0.25	0.1	11	H5
MMSZ5246B	16	15.2	16.8	17	7.8	600	0.25	0.1	12	J1
MMSZ5247B	17	16.15	17.85	19	7.5	600	0.25	0.1	13	J2
MMSZ5248B	18	17.1	18.9	21	7	600	0.25	0.1	14	J3
MMSZ5250B	20	19	21	25	6.2	600	0.25	0.1	15	J5
MMSZ5251B	22	20.9	23.1	29	5.6	600	0.25	0.1	17	K1
MMSZ5252B	24	22.8	25.2	33	5.2	600	0.25	0.1	18	K2
MMSZ5254B	27	25.65	28.35	41	5	600	0.25	0.1	21	K4
MMSZ5255B	28	26.6	29.4	44	4.5	600	0.25	0.1	21	K5
MMSZ5256B	30	28.5	31.5	49	4.2	600	0.25	0.1	23	M1
MMSZ5257B	33	31.35	34.65	58	3.8	700	0.25	0.1	25	M2
MMSZ5258B	36	34.2	37.8	70	3.4	700	0.25	0.1	27	M3
MMSZ5259B	39	37.05	40.95	80	3.2	800	0.25	0.1	30	M4
MMSZ5260B	43	40.85	45.15	93	3	900	0.25	0.1	33	M5
MMSZ5261B	47	44.65	49.35	105	2.7	1000	0.25	0.1	36	N1
MMSZ5262B	51	48.45	53.55	125	2.5	1100	0.25	0.1	39	N2



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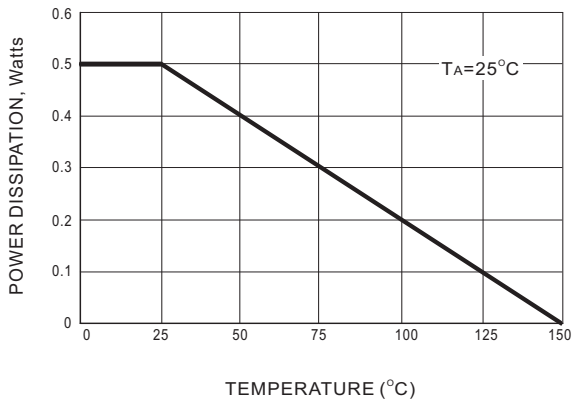


Fig.1 STEADY STATE POWER DERATING

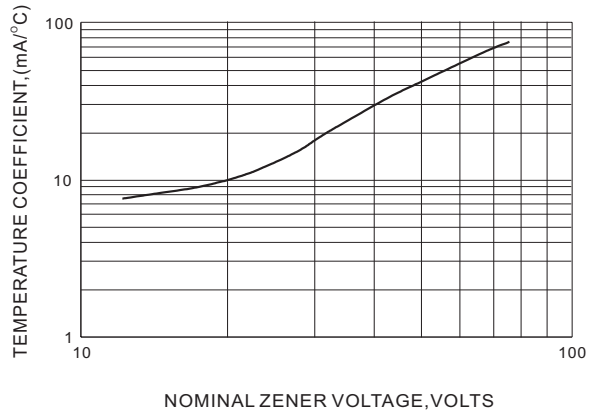


Fig.2 TEMPERATURE COEFFICIENTS

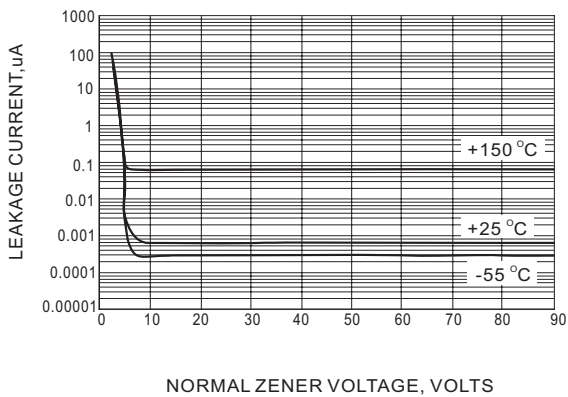


Fig.3 TYPICAL LEAKAGE CURRENT

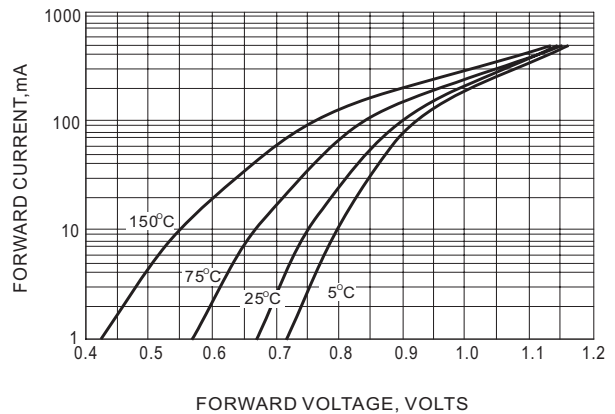


Fig.4 TYPICAL FORWARD VOLTAGE

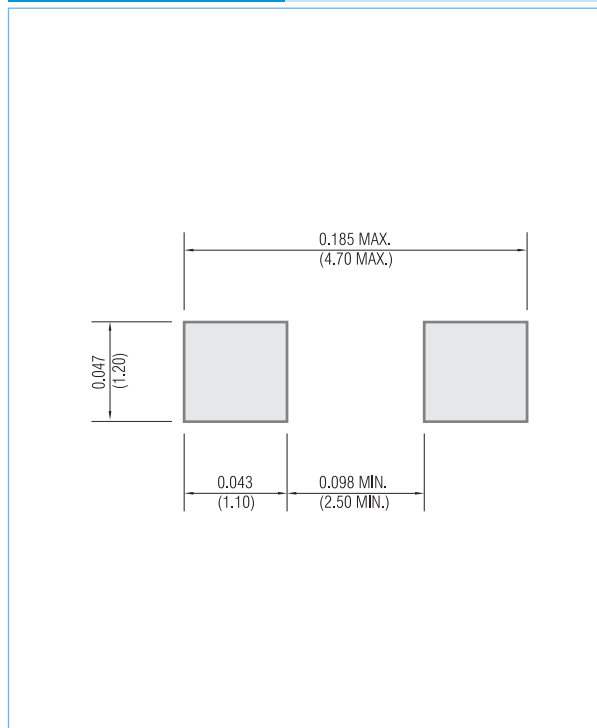


## MMSZ5221B SERIES

### MOUNTING PAD LAYOUT

SOD-123

Unit: inch ( mm )



### ORDER INFORMATION

- Packing information
  - T/R - 10K per 13" plastic Reel
  - T/R - 3K per 7" plastic Reel

### LEGAL STATEMENT

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