



# MMSZ5221B~MMSZ5262B

## SURFACE MOUNT SILICON ZENER DIODES

**VOLTAGE** 2.4 to 51 Volts

**POWER** 500 mWatts

**SOD-123**

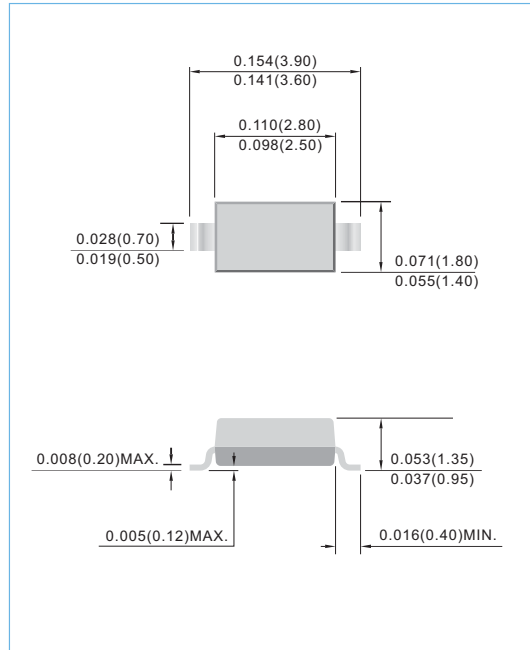
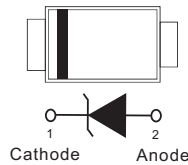
Unit : inch(mm)

### FEATURES

- Planar Die construction
- 500mW Power Dissipation
- Ideally Suited for Automated Assembly Processes
- Lead free in comply with EU RoHS 2002/95/EC directives.
- Green molding compound as per IEC61249 Std. . (Halogen Free)

### MECHANICAL DATA

- Case: SOD-123, Molded Plastic
- Terminals: Solderable per MIL-STD-750, Method 2026
- Polarity: See Diagram Below
- Approx. Weight: 0.0004 ounces, 0.0104 grams
- Mounting Position: Any



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Parameter	Symbol	Value	Units
Total Power Dissipation (Notes A) at $T_L=60^\circ\text{C}$	$P_D$	500	mW
Operating Junction and Storage Temperature Range	$T_J$	-55 to +150	$^\circ\text{C}$

**NOTES:**

A. Mounted on 100cm<sup>2</sup>(1mm thick) copper areas.



## MMSZ5221B~MMSZ5262B

Part Number	Nominal Zener Voltage			Max. Zener Impedance				Max Reverse Leakage Current		Marking Code
	V <sub>Z</sub> @ I <sub>ZT</sub>			Z <sub>zT</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
MMSZ5224B	2.8	2.66	2.94	30	20	1400	0.25	75	1	C4
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
MMSZ5233B	6.0	5.70	6.30	7	20	1600	0.25	5	3.5	E3
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
MMSZ5249B	19	18.05	19.95	23	6.6	600	0.25	0.1	14	J4
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
MMSZ5253B	25	23.75	26.25	35	5.0	600	0.25	0.1	19	K3
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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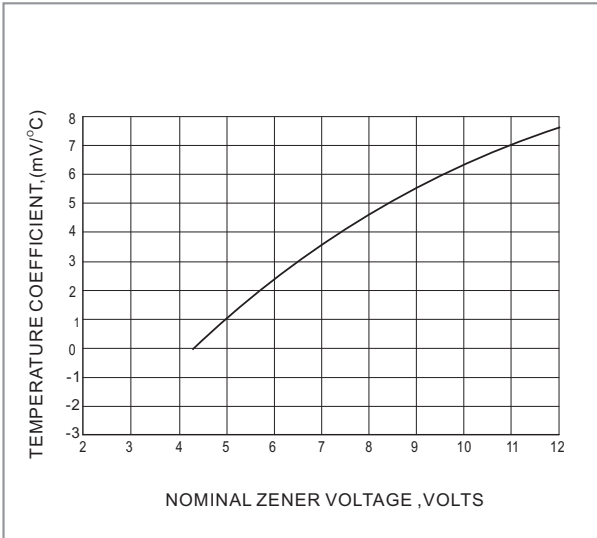


Fig.1 TEMPERATURE COEFFICIENTS

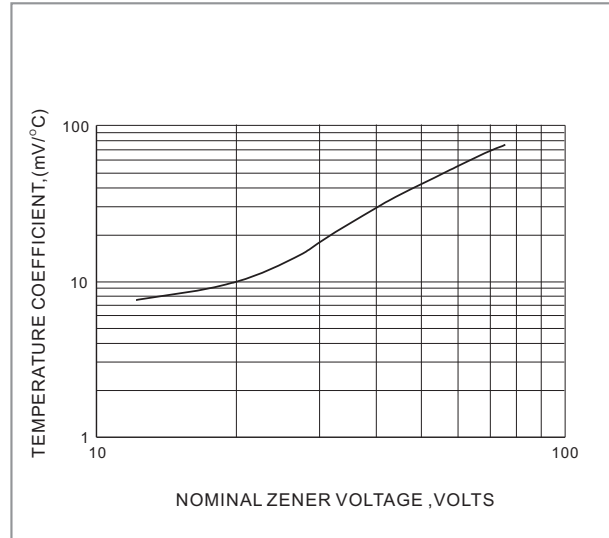


Fig.2 TEMPERATURE COEFFICIENTS

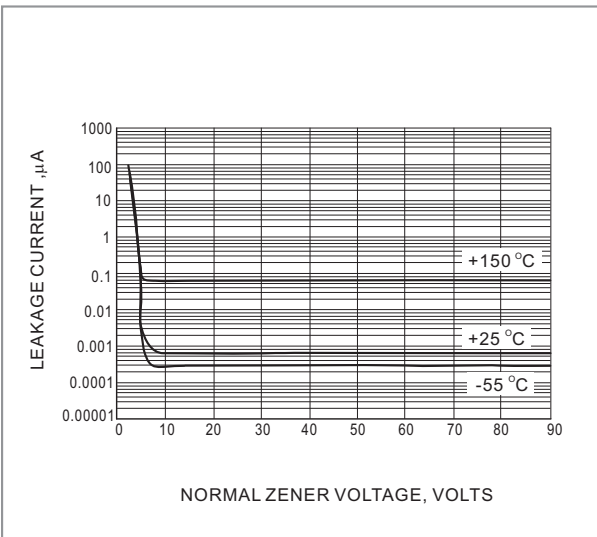


Fig.3 TYPICAL LEAKAGE CURRENT

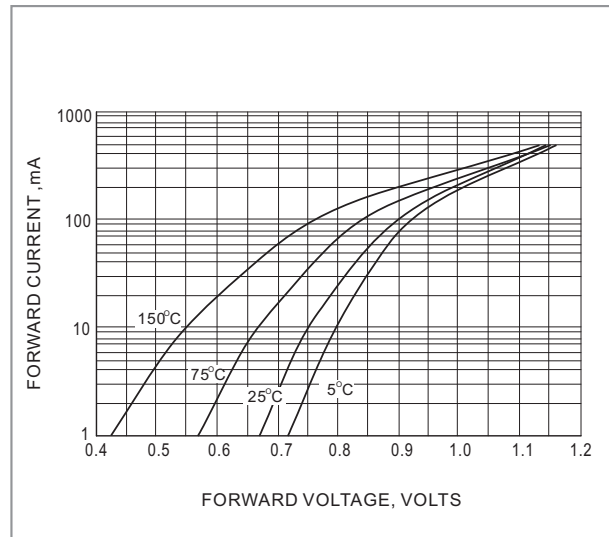


Fig.4 TYPICAL FORWARD VOLTAGE

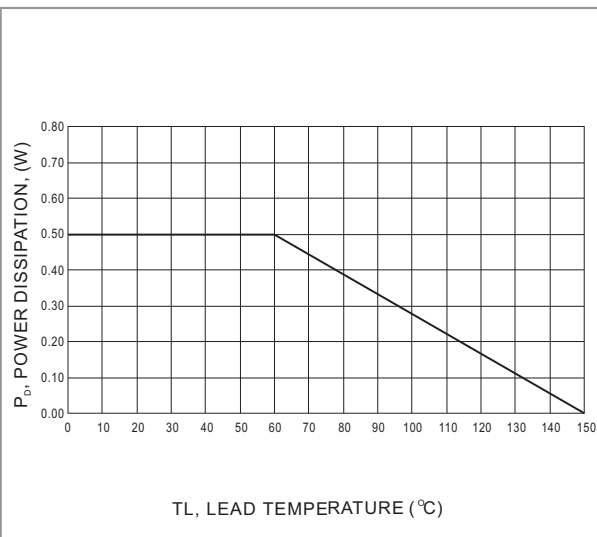
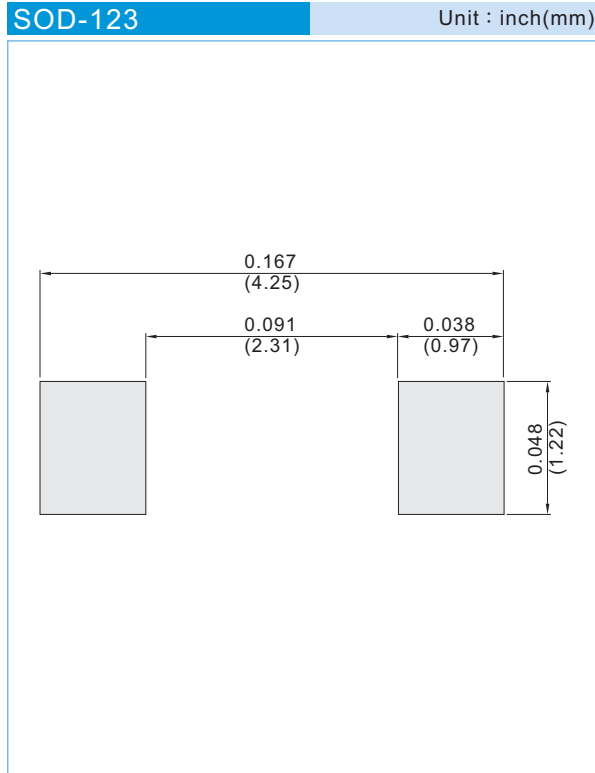


Fig.5 POWER DERATING CURVE



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## MOUNTING PAD LAYOUT



## ORDER INFORMATION

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

## LEGAL STATEMENT

### Copyright PanJit International, Inc 2012

The information presented in this document is believed to be accurate and reliable. The specifications and information herein are subject to change without notice. Pan Jit makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose. Pan Jit products are not authorized for use in life support devices or systems. Pan Jit does not convey any license under its patent rights or rights of others.



## MMSZ5221B~MMSZ5262B

For example :

RB500V-40\_R2\_00001



Packing Code <b>XX</b>				Version Code <b>XXXXX</b>		
Packing type	1 <sup>st</sup> Code	Packing size code	2 <sup>nd</sup> Code	HF or RoHS	1 <sup>st</sup> Code	2 <sup>nd</sup> ~5 <sup>th</sup> Code
T/B	<b>A</b>	N/A	<b>0</b>	<b>HF</b>	<b>0</b>	serial number
T/R	<b>R</b>	7"	<b>1</b>	<b>RoHS</b>	<b>1</b>	serial number
B/P	<b>B</b>	13"	<b>2</b>			
T/P	<b>T</b>	26mm	<b>X</b>			
TRR	<b>S</b>	52mm	<b>Y</b>			
TRL	<b>L</b>	PBCU	<b>U</b>			
FORMING	<b>F</b>	PBCD	<b>D</b>			

Part No\_packing code\_Version

MMSZ5221B\_R1\_00001

MMSZ5221B\_R2\_00001