

Small Signal Product

## Hermetically Sealed Glass Zener Voltage Regulators

### FEATURES

- Zener voltage range 2.4 to 56 volts
- Ideal for automated placement
- Hermetically sealed glass
- Compression bonded construction
- All external surfaces are corrosion resistant and leads are readily solderable
- RoHS compliant
- Matte Tin (Sn) lead finish
- Blue color band indicates negative polarity



**MINI MELF**



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T <sub>A</sub> =25°C unless otherwise noted)			
PARAMETER	SYMBOL	VALUE	UNIT
Power Dissipation	P <sub>D</sub>	500	mW
Forward Voltage	V <sub>F</sub>	1.1	V
Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	- 65 to +200	°C

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

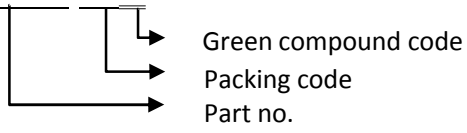
Device	$V_Z @ I_{ZT}$ (Volts) Nom	$I_{ZT}$ (mA)	$Z_{ZT} @ I_{ZT}$ ( $\Omega$ ) Max.	$Z_{ZK} @ I_{ZK}$ $=0.25\text{mA}$ ( $\Omega$ ) Max.	$I_R @ V_R$ ( $\mu\text{A}$ ) Max.	$V_R$ (Volts)
LLZ5221B	2.4	20	30	1200	100	1.0
LLZ5222B	2.5	20	30	1250	100	1.0
LLZ5223B	2.7	20	30	1300	75	1.0
LLZ5224B	2.8	20	30	1400	75	1.0
LLZ5225B	3.0	20	30	1600	50	1.0
LLZ5226B	3.3	20	28	1600	25	1.0
LLZ5227B	3.6	20	24	1700	15	1.0
LLZ5228B	3.9	20	23	1900	10	1.0
LLZ5229B	4.3	20	22	2000	5.0	1.0
LLZ5230B	4.7	20	19	1900	5.0	2.0
LLZ5231B	5.1	20	17	1600	5.0	2.0
LLZ5232B	5.6	20	11	1600	5.0	3.0
LLZ5233B	6.0	20	7	16900	5.0	3.5
LLZ5234B	6.2	20	7	1000	5.0	4.0
LLZ5235B	6.8	20	5	750	3.0	5.0
LLZ5236B	7.5	20	6	500	3.0	6.0
LLZ5237B	8.2	20	8	500	3.0	6.5
LLZ5238B	8.7	20	8	600	3.0	6.5
LLZ5239B	9.1	20	10	600	2.0	7.0
LLZ5240B	10	20	17	600	1.0	8.0
LLZ5241B	11	20	22	600	0.5	8.4
LLZ5242B	12	20	30	600	0.1	9.1
LLZ5243B	13	9.5	13	600	0.1	9.9
LLZ5244B	14	9.0	15	600	0.1	10
LLZ5245B	15	8.5	16	600	0.1	11
LLZ5246B	16	7.8	17	600	0.1	12
LLZ5247B	16	7.4	19	600	0.1	13
LLZ5248B	18	7.0	21	600	0.1	14
LLZ5249B	19	6.6	23	600	0.1	14
LLZ5250B	20	6.2	25	600	0.1	15
LLZ5251B	22	5.6	29	600	0.1	17
LLZ5252B	24	5.2	33	600	0.1	18
LLZ5253B	25	5.0	35	600	0.1	19
LLZ5254B	27	5.0	41	600	0.1	21
LLZ5255B	28	4.5	44	600	0.1	21
LLZ5256B	30	4.2	49	600	0.1	23
LLZ5257B	33	3.8	58	700	0.1	25
LLZ5258B	36	3.4	70	700	0.1	27
LLZ5259B	39	3.2	80	800	0.1	30
LLZ5260B	43	3.0	93	900	0.1	33
LLZ5261B	47	2.7	105	1000	0.1	36
LLZ5262B	51	2.5	125	1100	0.1	39
LLZ5263B	56	2.2	150	1300	0.1	43

- Notes : 1. The type numbers listed have zener voltage as shown and have a standard tolerance on the nominal zener voltage of  $\pm 5\%$  in Blue marking, suffix A= $\pm 10\%$  in Orange marking and D= $\pm 1\%$  in Yellow marking.
2. For detailed information on price, availability and deliver of nominal zener voltages between the voltages shown and tighter voltage tolerances, contact your nearest Taiwan Semiconductor representative.
3. The zener impedance is derived from the 60-cycle ac voltage, which results when an ac current having an RMS value equal to 10% of the dc zener current ( $I_{ZT}$  or  $I_{ZK}$ ) is superimposed to  $I_{ZT}$  or  $I_{ZK}$ .

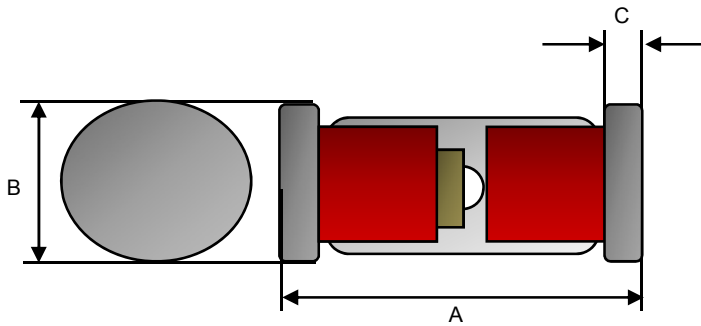
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ORDER INFORMATION (EXAMPLE)

LLZ5221B LOG

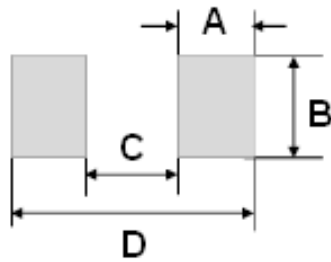


PACKAGE OUTLINE DIMENSION



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	3.30	3.70	0.130	0.146
B	1.40	1.60	0.055	0.063
C	0.20	0.50	0.008	0.020

SUGGEST PAD LAYOUT



DIM.	Unit (mm)	Unit (inch)
	Typ.	Typ.
A	1.25	0.049
B	2.00	0.079
C	2.50	0.098
D	5.00	0.197

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[LLZ5231B](#) [LLZ5232B](#) [LLZ5233B](#) [LLZ5234B](#) [LLZ5235B](#) [LLZ5236B](#) [LLZ5237B](#) [LLZ5238B](#) [LLZ5239B](#) [LLZ5240B](#)  
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[LLZ5261B](#) [LLZ5262B](#) [LLZ5263B](#) [LLZ5246B L1](#) [LLZ5254B L0](#) [LLZ5253B L1G](#) [LLZ5234B L1](#) [LLZ5230B L1G](#)  
[LLZ5249B L0G](#) [LLZ5246B L0](#) [LLZ5239B L1](#) [LLZ5253B L0G](#) [LLZ5236B L0G](#) [LLZ5228B L0](#) [LLZ5226B L0G](#)  
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[L0G](#) [LLZ5244B L0G](#) [LLZ5226B L1G](#) [LLZ5234B L0](#) [LLZ5225B L0G](#) [LLZ5263B L0](#) [LLZ5222B L1G](#) [LLZ5252B L0](#)  
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[LLZ5231B L1](#)