

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
- Color band indicates negative polarity


MINI MELF


MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T _A =25°C unless otherwise noted)			
PARAMETER	SYMBOL	VALUE	UNIT
Power Dissipation	P _D	500	mW
Forward Voltage I _F = 200 mA	V _F	1.1	V
Storage Temperature Range	T _J , T _{STG}	- 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)	$Z_{ZT} @ I_{ZT}$ (Ω) Max.	$Z_{ZK} @ I_{ZK}$ $=0.25\text{mA}$ (Ω) Max.	$I_R @ V_R$ (μA) 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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ORDERING INFORMATION

PART NO.	MANUFACTURE CODE	PACKING CODE	GREEN COMPOUND CODE	PACKAGE	PACKING
LLZ52xxB (Note1)	(Note 2)	L0	G	MINI MELF	10K / 13" Reel
		L1			2.5K / 7" Reel

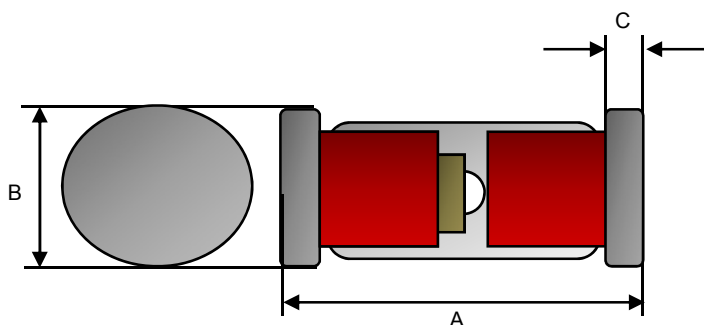
Note 1: "xxx" defines voltage from 2.4V (LLZ5221B) to 56V (LLZ5263B)

Note 2: Manufacture special control, if empty means no special control requirement.

EXAMPLE

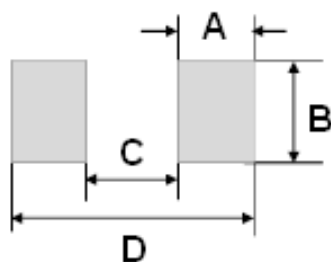
PREFERRED P/N	PART NO.	MANUFACTURE CODE	PACKING CODE	GREEN COMPOUND CODE	DESCRIPTION
LLZ5221B L0G	LLZ5221B		L0	G	Green compound
LLZ5221B-L0 L0G	LLZ5221B	L0	L0	G	Green compound

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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