

Small Signal Product

## Hermetically Sealed Glass Zener Voltage Regulators

### FEATURES

- Zener voltage range 2.4 to 75 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 <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>	1.2	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.	$I_R @ V_R$ ( $\mu\text{A}$ ) Max.	$V_R$ (Volts)
LLZ2V4	2.4	5	100	120	1.0
LLZ2V7	2.7	5	110	100	1.0
LLZ3V0	3.0	5	120	50	1.0
LLZ3V3	3.3	5	120	20	1.0
LLZ3V6	3.6	5	100	10	1.0
LLZ3V9	3.9	5	100	5	1.0
LLZ4V3	4.3	5	100	5	1.0
LLZ4V7	4.7	5	80	5	1.0
LLZ5V1	5.1	5	80	5	1.5
LLZ5V6	5.6	5	60	5	2.5
LLZ6V2	6.2	5	60	5	3.0
LLZ6V8	6.8	5	20	2.0	3.5
LLZ7V5	7.5	5	20	0.5	4.0
LLZ8V2	8.2	5	20	0.5	5.0
LLZ9V1	9.1	5	25	0.5	6.0
LLZ10	10.0	5	30	0.2	7.0
LLZ11	11.0	5	30	0.2	8.0
LLZ12	12	5	30	0.2	9.0
LLZ13	13	5	35	0.2	10.0
LLZ15	15	5	40	0.2	11.0
LLZ16	16	5	40	0.2	12.0
LLZ18	18	5	45	0.2	13
LLZ20	20	5	45	0.2	15
LLZ22	22	5	30	0.2	17
LLZ24	24	5	35	0.2	19
LLZ27	27	5	45	0.2	21
LLZ30	30	5	55	0.2	23
LLZ33	33	5	65	0.2	25
LLZ36	36	5	75	0.2	27
LLZ39	39	5	85	0.2	30
LLZ43	43	5	90	0.2	33
LLZ47	47	5	90	0.2	36
LLZ51	51	5	110	0.2	39
LLZ56	56	5	110	0.2	43
LLZ62	62	2	201	0.2	47
LLZ68	68	2	230	0.2	51
LLZ75	75	2	240	0.2	56

- Notes :
1. The type numbers listed have zener voltage as shown and have a standard tolerance on the nominal zener voltage of  $\pm 5\%$ .
  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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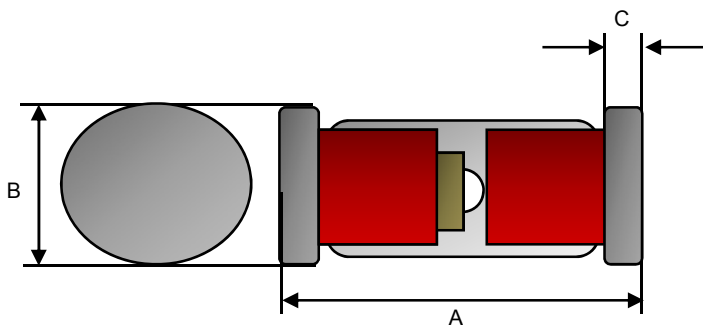
ORDERING INFORMATION					
PART NO.	MANUFACTURE CODE	PACKING CODE	GREEN COMPOUND CODE	PACKAGE	PACKING
LLZxxx (Note1)	(Note 2)	L0	G	MINI MELF	10K / 13" Reel
		L1			2.5K / 7" Reel

Note 1: "xxx" defines voltage from 2.4V (LLZ2V4) to 75V (LLZ75)

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

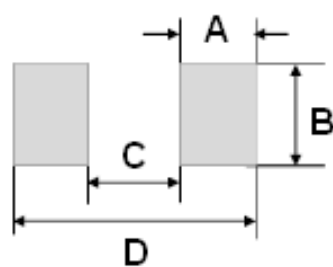
EXAMPLE					
PREFERRED P/N	PART NO.	MANUFACTURE CODE	PACKING CODE	GREEN COMPOUND CODE	DESCRIPTION
LLZ75 L0G	LLZ75		L0	G	Green compound
LLZ75-L0 L0G	LLZ75	L0	L0	G	Green compound

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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