

Small Signal Product

## Hermetically Sealed Glass Zener Voltage Regulators

### FEATURES

- Zener voltage range 3.3 to 56 volts
- Ideal for automated placement
- Hermetically sealed glass
- Compression bonded construction
- All external surfaces are corrosion resistant and leads are readily solderable
- Matte Tin (Sn) lead finish
- Blue color band indicates negative polarity
- Packing code with suffix "G" means Halogen free



**MELF**



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS ( $T_A = 25\text{ }^\circ\text{C}$ unless otherwise noted)			
PARAMETER	SYMBOL	VALUE	UNIT
Power Dissipation	$P_D$	1	W
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	170	$^\circ\text{C/W}$
Junction Temperature Range	$T_J$	175	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	- 65 to +200	$^\circ\text{C}$

Note : These ratings are limiting values above which the serviceability of the diode may be impaired

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

Type Number	$V_Z @ I_{ZT}$ (Volts) Nominal	$I_{ZT}$ (mA)	$Z_{ZT} @ I_{ZT}$ (Ohm) Max.	$I_{ZK}$ (mA)	$Z_{ZK} @ I_{ZK}$ (Ohm)	$I_R @ V_R$ (pA) Max.	$V_R$ (Volts)
ZM4728A	3.3	76	10	1.0	400	100	1.0
ZM4729A	3.6	69	10	1.0	400	100	1.0
ZM4730A	3.9	64	9	1.0	400	50	1.0
ZM4731A	4.3	58	9	1.0	400	10	1.0
ZM4732A	4.7	53	8	1.0	500	10	1.0
ZM4733A	5.1	49	7	1.0	550	10	1.0
ZM4734A	5.6	45	5	1.0	600	10	2.0
ZM4735A	6.2	41	2	1.0	700	10	3.0
ZM4736A	6.8	37	3.5	1.0	700	10	4.0
ZM4737A	7.5	34	4.0	0.5	700	10	5.0
ZM4738A	8.2	31	4.5	0.5	700	10	6.0
ZM4739A	9.1	28	5.0	0.5	700	10	7.0
ZM4740A	10	25	7.0	0.25	700	10	7.6
ZM4741A	11	23	8.0	0.25	700	5.0	8.4
ZM4742A	12	21	9.0	0.25	700	5.0	9.1
ZM4743A	13	19	10	0.25	700	5.0	9.9
ZM4744A	15	17	14	0.25	700	5.0	11.4
ZM4745A	16	15.5	16	0.25	700	5.0	12.2
ZM4746A	18	14.0	20	0.25	700	5.0	13.7
ZM4747A	20	12.5	22	0.25	750	5.0	15.2
ZM4748A	22	11.5	23	0.25	750	5.0	16.7
ZM4749A	24	10.5	25	0.25	750	5.0	18.2
ZM4750A	27	9.5	35	0.25	750	5.0	20.6
ZM4751A	30	8.5	40	0.25	1000	5.0	22.8
ZM4752A	33	7.5	45	0.25	1000	5.0	25.1
ZM4753A	36	7.0	50	0.25	1000	5.0	27.4
ZM4754A	39	6.5	60	0.25	1000	5.0	29.7
ZM4755A	43	6.0	70	0.25	1500	5.0	32.7
ZM4756A	47	5.5	80	0.25	1500	5.0	35.8
ZM4757A	51	5.0	95	0.25	1500	5.0	38.8
ZM4758A	56	4.5	110	0.25	2000	5.0	42.6

Notes : 1. The device numbers listed have a standard tolerance on the nominal zener voltage of  $\pm 5\%$ .

2. For detailed information on price, availability and delivery 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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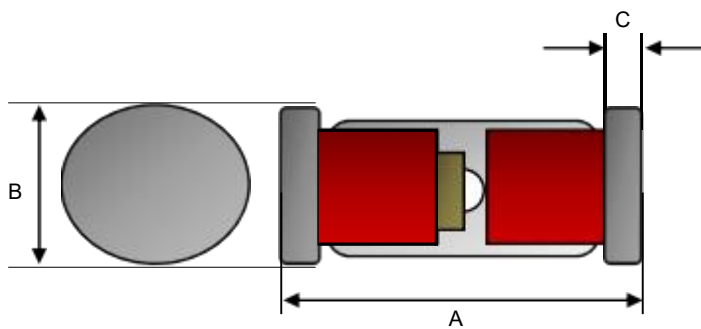
ORDERING INFORMATION					
PART NO.	PART NO. SUFFIX (Note 2)	PACKING CODE	PACKING CODE SUFFIX	PACKAGE	PACKING
ZM47xxA (Note1)	-xx	L0	G	MELF	5K / 13" Reel

Note 1: "xxx" defines voltage from 3.3V (ZM4728A) to 56V (ZM4758A)

Note 2: Part No. Suffix „-xx “ would be used for special requirement

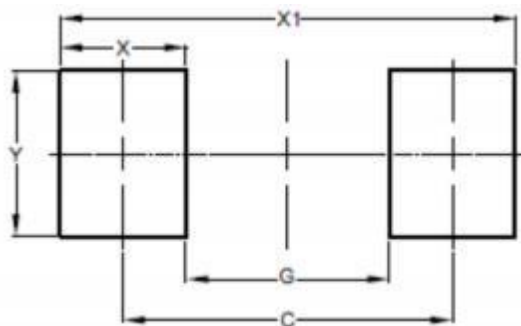
EXAMPLE					
PREFERRED P/ N	PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX	DESCRIPTION
ZM4758A L0G	ZM4758A		L0	G	Multiple manufacture source Halogen free
ZM4758A-L0 L0G	ZM4758A	-L0	L0	G	Define manufacture source Halogen free

PACKAGE OUTLINE DIMENSION



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	4.80	5.50	0.189	0.217
B	2.25	2.67	0.089	0.105
C	0.30	0.60	0.012	0.024

SUGGEST PAD LAYOUT



DIM.	Unit (mm)		Unit (inch)	
	Typ.		Typ.	
C	4.80		0.189	
G	3.30		0.130	
X	1.50		0.059	
X1	6.30		0.248	
Y	2.70		0.106	