

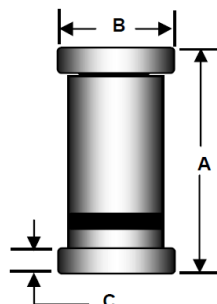
**LL-41 Hermetically
Sealed Glass Zener Voltage Regulators**

**REVERSE VOLTAGE – 3.3 to 56 Volts
POWER DISSIPATION – 1 Watts**

FEATURES

- Zener Voltage Range 3.3 to 56 Volts
- LL-41 MELF Package (JEDEC DO-213AB)
- Surface Device Type Mounting
- Hermetically Sealed Glass
- Compression Bonded Construction
- All External Surfaces Are Corrosion Resistant And Terminals Are Readily Solderable
- RoHS Compliant
- Matte Tin (Sn) Lead Finish
- Color band Indicates Negative Polarity

LL-41



LL-41		
DIM.	MIN.	MAX.
A	4.80	5.20
B	2.39	2.66
C	0.41	0.55
All Dimensions in millimeter		

Maximum Ratings & Thermal Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	Value	Unit
Total Device Dissipation	P_D	1	W
Storage Temperature Range	T_{STG}	-65 to +200	$^\circ\text{C}$
Maximum Junction Operating Temperature	T_{OPR}	+175	$^\circ\text{C}$
Thermal Resistance Junction to Ambient	R_{thJ-A}	170	$^\circ\text{C/W}$

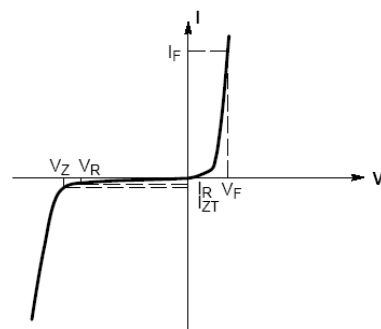
These ratings are limiting values above which the serviceability of the diode may be impaired

Device Marking :

Device P/N	Marking	Pin Diagram	Equivalent Circuit Diagram
ZM47xxA	N/A	1 2	1 2

Electrical Characteristics @ $T_A = 25^\circ\text{C}$ unless otherwise specified

Symbol	Parameter
V_Z	Reverse Zener Voltage @ I_{ZT}
I_{ZT}	Reverse Current
Z_{ZT}	Maximum Zener Impedance @ I_{ZT}
I_{ZK}	Reverse Current
Z_{ZK}	Maximum Zener Impedance @ I_{ZK}
I_R	Reverse Leakage Current @ V_R
V_R	Reverse Voltage
I_F	Forward Current
V_F	Forward Voltage @ I_F



Electrical Characteristics

TA = 25°C unless otherwise noted

Device Type	VZ @ IZT (Volts) Nominal	IZT (mA)	ZZT @ IZT (Ω) Max	IZK (mA)	ZZK @ IZK (Ω) Max	IR @ VR (A) Max	VR (Volts)
ZM4728A	3.3	76	10	1	400	100	1
ZM4729A	3.6	69	10	1	400	100	1
ZM4730A	3.9	64	9	1	400	50	1
ZM4731A	4.3	58	9	1	400	10	1
ZM4732A	4.7	53	8	1	500	10	1
ZM4733A	5.1	49	7	1	550	10	1
ZM4734A	5.6	45	5	1	600	10	2
ZM4735A	6.2	41	2	1	700	10	3
ZM4736A	6.8	37	3.5	1	700	10	4
ZM4737A	7.5	34	4	0.5	700	10	5
ZM4738A	8.2	31	4.5	0.5	700	10	6
ZM4739A	9.1	28	5	0.5	700	10	7
ZM4740A	10	25	7	0.25	700	10	7.6
ZM4741A	11	23	8	0.25	700	5	8.4
ZM4742A	12	21	9	0.25	700	5	9.1
ZM4743A	13	19	10	0.25	700	5	9.9
ZM4744A	15	17	14	0.25	700	5	11.4
ZM4745A	16	15.5	16	0.25	700	5	12.2
ZM4746A	18	14	20	0.25	700	5	13.7
ZM4747A	20	12.5	22	0.25	750	5	15.2
ZM4748A	22	11.5	23	0.25	750	5	16.7
ZM4749A	24	10.5	25	0.25	750	5	18.2
ZM4750A	27	9.5	35	0.25	750	5	20.6
ZM4751A	30	8.5	40	0.25	1000	5	22.8
ZM4752A	33	7.5	45	0.25	1000	5	25.1
ZM4753A	36	7	50	0.25	1000	5	27.4
ZM4754A	39	6.5	60	0.25	1000	5	29.7
ZM4755A	43	6	70	0.25	1500	5	32.7
ZM4756A	47	5.5	80	0.25	1500	5	35.8
ZM4757A	51	5	95	0.25	1500	5	38.8
ZM4758A	56	4.5	110	0.25	2000	5	42.6

VF Forward Voltage = 1.2 V Maximum @ IF = 200 mA for all types

Notes:

1. The device numbers listed have a standard tolerance on the nominal zener voltage of ±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 Liteon Semiconductor Corp. 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 (IZT or IZK) is superimposed to IZT or IZK.

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