Zibo Seno Electronic Engineering Co., Ltd.

淄博圣诺

DL4728A - DL4764A

1.0W ZENER DIODE

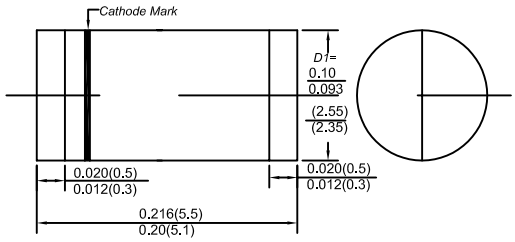
Features

- 1.0 Watt Power Dissipation
- 3.3V - 100V Nominal Zener Voltage
- Standard V_Z Tolerance is 5%
- **Lead Free Finish, RoHS Compliant**

LL-41 / MELF

Mechanical Data

- Case: LL-41 / MELF
- Case Material: Glass. UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 1 per J-STD-020C
- Terminals: Finish Sn96.5Ag3.5. Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Marking: Type Number
- Weight: 0.25 grams (approximate)



Maximum Ratings @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Zener Current (see Table page 2)	I_Z	Pd / V_Z	mA
Power Dissipation Derate Above 50°C (Note 1)	P_d	1.0 6.67	W mW/°C
Thermal Resistance - Junction to Ambient Air	R_{JA}	170	°C/W
Forward Voltage @ I_F = 200 mA	V_F	1.2	V
Operating and Storage Temperature Range	T_j, T_{STG}	-65 to + 175	°C

Note: 1. Valid provided that leads are kept at T_L @ 50 C with lead length = 9.5mm (3/8") from case.
2. EC Directive 2002/95/EC (RoHS) revision 13.2.2003. Glass and High Temperature Solder Exemptions Applied where applicable, see *EU Directive Annex Notes 5 and 7.*

Electrical Characteristics @ T_A = 25°C unless otherwise specified

Type Number	Nominal Zener Voltage (Note 3)	Test Current	Maximum Zener Impedance (Note 4)			Maximum Reverse Leakage Current		Max Surge Current 8.3ms	Temperature Coefficient @ I_{ZT}
	V_Z @ I_{ZT}	I_{ZT}	Z_{ZT} @ I_{ZT}	Z_{ZK} @ I_{ZK}	I_{ZK}	I_R	@ V_R	I_{ZS}	
	(V)	(mA)	( )	( )	(mA)	(μA)	(V)	(mA)	%/°C
DL4728A	3.3	76	10	400	1.0	100	1.0	1380	-0.08 to -0.05
DL4729A	3.6	69	10	400	1.0	100	1.0	1260	-0.08 to -0.05
DL4730A	3.9	64	9.0	400	1.0	50	1.0	1190	-0.07 to -0.02
DL4731A	4.3	58	9.0	400	1.0	10	1.0	1070	-0.07 to -0.01
DL4732A	4.7	53	8.0	500	1.0	10	1.0	970	-0.03 to +0.04
DL4733A	5.1	49	7.0	550	1.0	10	1.0	890	-0.01 to +0.04
DL4734A	5.6	45	5.0	600	1.0	10	2.0	810	0 to +0.045
DL4735A	6.2	41	2.0	700	1.0	10	3.0	730	+0.01 to +0.055
DL4736A	6.8	37	3.5	700	1.0	10	4.0	660	+0.015 to +0.06
DL4737A	7.5	34	4.0	700	0.5	10	5.0	605	+0.02 to +0.065
DL4738A	8.2	31	4.5	700	0.5	10	6.0	550	0.03 to 0.07
DL4739A	9.1	28	5.0	700	0.5	10	7.0	500	0.035 to 0.075
DL4740A	10	25	7.0	700	0.25	10	7.6	454	0.04 to 0.08
DL4741A	11	23	8.0	700	0.25	5.0	8.4	414	0.045 to 0.08
DL4742A	12	21	9.0	700	0.25	5.0	9.1	380	0.045 to 0.085
DL4743A	13	19	10	700	0.25	5.0	9.9	344	0.05 to 0.085
DL4744A	15	17	14	700	0.25	5.0	11.4	304	0.055 to 0.09
DL4745A	16	15.5	16	700	0.25	5.0	12.2	285	0.055 to 0.09
DL4746A	18	14	20	750	0.25	5.0	13.7	250	0.06 to 0.09
DL4747A	20	12.5	22	750	0.25	5.0	15.2	225	0.06 to 0.09
DL4748A	22	11.5	23	750	0.25	5.0	16.7	205	0.06 to 0.095
DL4749A	24	10.5	25	750	0.25	5.0	18.2	190	0.06 to 0.095
DL4750A	27	9.5	35	750	0.25	5.0	20.6	170	0.06 to 0.095
DL4751A	30	8.5	40	1000	0.25	5.0	22.8	150	0.06 to 0.095
DL4752A	33	7.5	45	1000	0.25	5.0	25.1	135	0.06 to 0.095
DL4753A	36	7.0	50	1000	0.25	5.0	27.4	125	0.06 to 0.095
DL4754A	39	6.5	60	1000	0.25	5.0	29.7	115	0.06 to 0.095
DL4755A	43	6.0	70	1500	0.25	5.0	32.7	110	0.06 to 0.095
DL4756A	47	5.5	80	1500	0.25	5.0	35.8	95	0.06 to 0.095
DL4757A	51	5.0	95	1500	0.25	5.0	38.8	90	0.06 to 0.095
DL4758A	56	4.5	110	2000	0.25	5.0	42.6	80	0.06 to 0.095
DL4759A	62	4.0	125	2000	0.25	5.0	47.1	70	0.06 to 0.095
DL4760A	68	3.7	150	2000	0.25	5.0	51.7	65	0.06 to 0.095
DL4761A	75	3.3	175	2000	0.25	5.0	56.0	60	0.06 to 0.095
DL4762A	82	3.0	200	3000	0.25	5.0	62.2	55	0.06 to 0.095
DL4763A	91	2.8	250	3000	0.25	5.0	69.2	50	0.06 to 0.095
DL4764A	100	2.5	350	3000	0.25	5.0	76.0	45	0.06 to 0.095

Notes: 3. Measured under thermal equilibrium and dc (I_{ZT}) test conditions.

4. The Zener impedance is derived from the 60 Hz ac voltage which results when an ac current having an rms value equal to 10% of the Zener current (I_{ZT} or I_{ZK}) is superimposed on I_{ZT} or I_{ZK}. Zener impedance is measured at two points to insure a sharp knee on the breakdown curve and to eliminate unstable units.

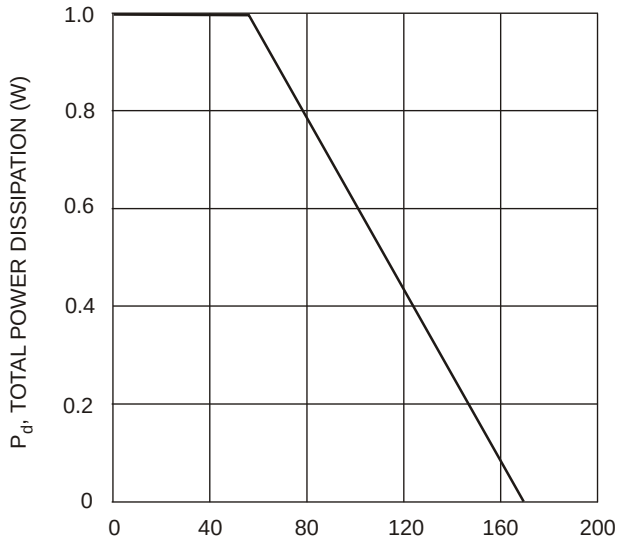


Fig.1 Power Dissipation vs Ambient Temperature

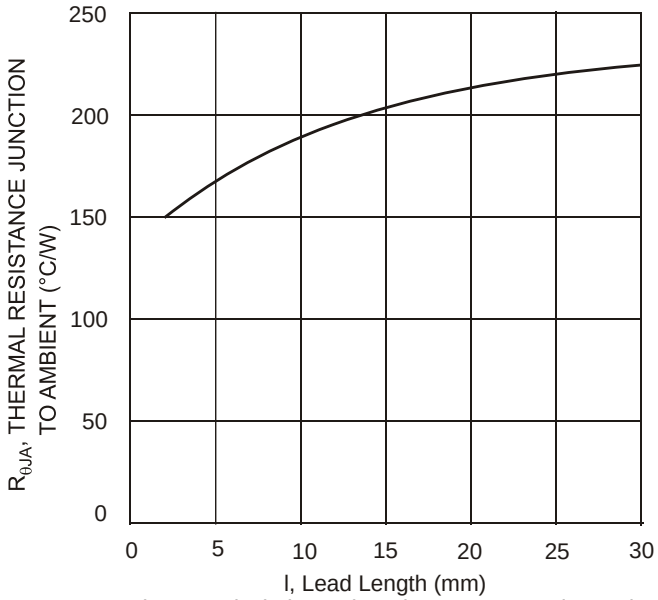


Fig. 2 Typical Thermal Resistance vs. Lead Length

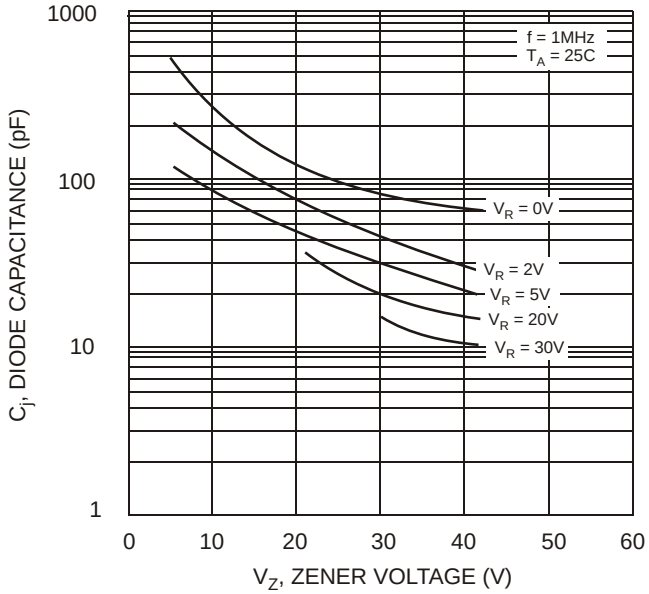


Fig.3, Junction Capacitance vs Zener Voltage

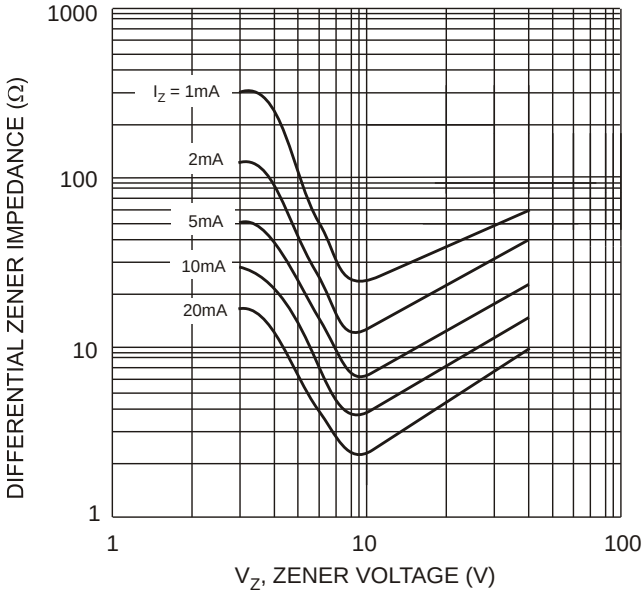


Fig. 4 Typical Zener Impedance vs. Zener Voltage