

SILICON PLANAR POWER ZENER DIODES

ZM4728 - ZM4764
3.3 - 100V



LL-41 (MELF)
Glass Axial Package

For Use in Stabilizing and Clipping Circuits with High Power Rating

Standard Zener Voltage tolerance is +/- 10% . Add Suffix A FOR +/- 5% tolerance

ABSOLUTE MAXIMUM RATINGS (T_a=25°C)

DESCRIPTION	SYMBOL	VALUE	UNIT
Power Dissipation at T _{amb} =25°C	*P _D	1	W
Junction Temperature	T _j	+175	°C
Storage Temperature Range	T _{stg}	- 65 to +175	°C

THERMAL RESISTANCE

Junction to Ambient in free Air	*R _{th(j-a)}	170	K/W
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*Valid provided that electrodes are kept at ambient temperature

ELECTRICAL CHARACTERISTICS (T_a=25°C V_F <1.2V at 200mA)

Device	***V _{ZT} at I _{ZT} Nominal (V)	I _{ZT} (mA)	*Maximum Zener Impedance			I _R Max (mA)	V _R (V)	Surge Current Max I _R (mA)	**I _{ZM} Max (mA)
			r _{zt} MAX (W)	Z _{ZK} at I _{ZK} MAX (W)	at I _{ZK} (mA)				
ZM4728	3.3	76	10	400	1.00	150	1.0	1375	275
ZM4729	3.6	69	10	400	1.00	100	1.0	1260	252
ZM4730	3.9	64	9.0	400	1.00	100	1.0	1190	234
ZM4731	4.3	58	9.0	400	1.00	50	1.0	1070	217
ZM4732	4.7	53	8.0	500	1.00	10	1.0	970	193
ZM4733	5.1	49	7.0	550	1.00	10	1.0	890	178
ZM4734	5.6	45	5.0	600	1.00	10	2.0	810	162
ZM4735	6.2	41	2.0	700	1.00	10	3.0	730	146
ZM4736	6.8	37	3.5	700	1.00	10	4.0	660	133
ZM4737	7.5	34	4.0	700	0.5	10	5.0	605	121
ZM4738	8.2	31	4.5	700	0.5	10	6.0	550	110
ZM4739	9.1	28	5.0	700	0.5	10	7.0	500	100
ZM4740	10	25	7.0	700	0.25	10	7.6	454	91
ZM4741	11	23	8.0	700	0.25	5	8.4	414	83
ZM4742	12	21	9.0	700	0.25	5	9.1	380	76
ZM4743	13	19	10	700	0.25	5	9.9	344	69
ZM4744	15	17	14	700	0.25	5	11.4	304	61
ZM4745	16	15.5	16	700	0.25	5	12.2	285	57
ZM4746	18	14	20	750	0.25	5	13.7	250	50
ZM4747	20	12.5	22	750	0.25	5	15.2	225	45
ZM4748	22	11.5	23	750	0.25	5	16.7	205	41
ZM4749	24	10.5	25	750	0.25	5	18.2	190	38
ZM4750	27	9.5	35	750	0.25	5	20.6	170	34
ZM4751	30	8.5	40	1000	0.25	5	22.8	150	30
ZM4752	33	7.5	45	1000	0.25	5	25.1	135	27



ELECTRICAL CHARACTERISTICS ($T_a=25^{\circ}\text{C}$ $V_F < 1.2\text{V}$ at 200mA)

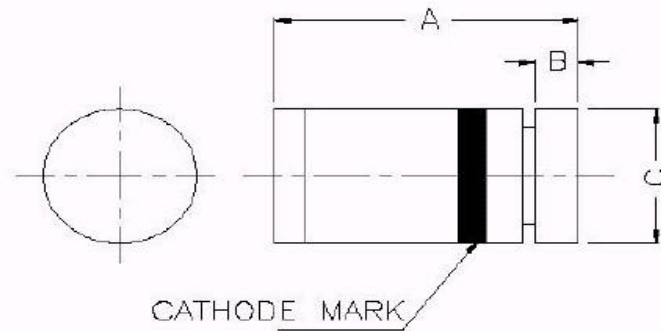
Device	*** V_{ZT} at I_{ZT} Nominal (V)	I_{ZT} (mA)	*Maximum Zener Impedance			I_R Max (mA)	V_R (V)	Surge Current Max I_R (mA)	** I_{ZM} Max (mA)
			r_{zt} MAX (W)	Z_{ZK} at I_{ZK} MAX (W)	Z_{ZK} at I_{ZK} (mA)				
ZM4753	36	7.0	50	1000	0.25	5	27.4	125	25
ZM4754	39	6.5	60	1000	0.25	5	29.7	115	23
ZM4755	43	6.0	70	1500	0.25	5	32.7	110	22
ZM4756	47	5.5	80	1500	0.25	5	35.8	95	19
ZM4757	51	5.0	95	1500	0.25	5	38.8	90	18
ZM4758	56	4.5	110	2000	0.25	5	42.6	80	16
ZM4759	62	4.0	125	2000	0.25	5	47.1	70	14
ZM4760	68	3.7	150	2000	0.25	5	51.7	65	13
ZM4761	75	3.3	175	2000	0.25	5	56.0	60	12
ZM4762	82	3.0	200	3000	0.25	5	62.2	55	11
ZM4763	91	2.8	250	3000	0.25	5	69.2	50	10
ZM4764	100	2.5	350	3000	0.25	5	76.0	45	9

* 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.

*Valid provided that electrodes are kept at ambient temperature

*** Measured under thermal equilibrium and DC test conditions

PACKAGE LL-41 MELF



DIM	MIN.	MAX.
A	4.8	5.2
B	0.4	—
C	∅2.35	∅2.55

All dimensions are in mm

PACKING:— 5K/REEL



Component Disposal Instructions

1. CDIL Semiconductor Devices are RoHS compliant, customers are requested to please dispose as per prevailing Environmental Legislation of their Country.
2. In Europe, please dispose as per EU Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE).

Disclaimer

The product information and the selection guides facilitate selection of the CDIL's Semiconductor Device(s) best suited for application in your product(s) as per your requirement. It is recommended that you completely review our Data Sheet(s) so as to confirm that the Device(s) meet functionality parameters for your application. The information furnished in the Data Sheet and on the CDIL Web Site/CD is believed to be accurate and reliable. CDIL however, does not assume responsibility for inaccuracies or incomplete information. Furthermore, CDIL does not assume liability whatsoever, arising out of the application or use of any CDIL product; neither does it convey any license under its patent rights nor rights of others. These products are not designed for use in life saving/support appliances or systems. CDIL customers selling these products (either as individual Semiconductor Devices or incorporated in their end products), in any life saving/support appliances or systems or applications do so at their own risk and CDIL will not be responsible for any damages resulting from such sale(s).

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