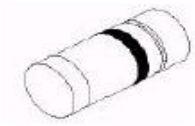
# SILICON PLANAR POWER ZENER DIODES

**ZM4728 - ZM4764**
**3.3 - 100V**



**LL-41 (MELF)**
**Glass Axial Package**

**For Use in Stabilzing and Clipping Circuits with High Power Rating**

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

**ABSOLUTE MAXIMUM RATINGS ($T_a$=25ºC)**

| DESCRIPTION | SYMBOL | VALUE | UNIT |
|---|---|---|---|
| Power Dissipation at $T_{amb}$=25ºC | *$P_D$ | 1 | W |
| Junction Temperature | $T_j$ | +175 | ºC |
| Storage Temperature Range | $T_{stg}$ | - 65 to +175 | ºC |

**THERMAL RESISTANCE**

| | | | |
|---|---|---|---|
| Junction to Ambient in free Air | *$R_{th\ (j\text{-}a)}$ | 170 | K/W |

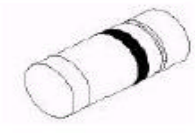
***Valid provided that electrodes are kept at ambient temperature**

**ELECTRICAL CHARACTERISTICS ($T_a$=25ºC $V_F$ <1.2V at 200mA )**

| Device | ***$V_{ZT}$ at $I_{ZT}$ | $I_{ZT}$ | *Maximum Zener Impedance | | | $I_R$ | $V_R$ | Surge Current | **$I_{ZM}$ |
|---|---|---|---|---|---|---|---|---|---|
| | Nominal | | $r_{zt}$ MAX | $Z_{ZK}$ MAX | at $I_{ZK}$ | Max | | Max $I_R$ | Max |
| | (V) | (mA) | (W) | (W) | (mA) | (mA) | (V) | (mA) | (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 |

## SILICON PLANAR POWER ZENER DIODES

**ZM4728 - ZM4764**
**3.3 - 100V**



**LL-41 (MELF)**
**Glass Axial Package**

**ELECTRICAL CHARACTERISTICS ($T_a$=25ºC $V_F$ <1.2V at 200mA )**

| Device | ***$V_{ZT}$ at $I_{ZT}$ | $I_{ZT}$ | *Maximum Zener Impedance | | | $I_R$ | $V_R$ | Surge Current | **$I_{ZM}$ |
|---|---|---|---|---|---|---|---|---|---|
| | Nominal | | $r_{zt}$ MAX | MAX | $Z_{ZK}$ at $I_{ZK}$ | Max | | Max $I_R$ | Max |
| | (V) | (mA) | (W) | (W) | (mA) | (mA) | (V) | (mA) | (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 |

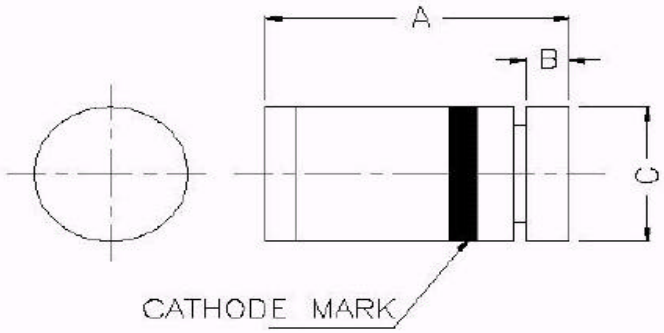
*** The Zener Impedance is derived from the 60 $H_Z$ AC voltage which results when an AC current having an RMS value equal to 10% of the Zener current ($I_{ZT}$ or $I_{ZK}$) is superimposed on $I_{ZT}$ or $I_{ZK}$. Zener Impedance is measured at two points to insure a sharp knee on the breakdown curve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

***Valid provided that electrodes are kept at ambient temperature**

***** Measured under thermal equilibrium and DC test conditions**

**ZM4728_4764Rev120706E**

PACKAGE LL-41 MELF




| DIM | MIN. | MAX. |
|---|---|---|
| A | 4.8 | 5.2 |
| B | 0.4 | – |
| C | ø2.35 | ø2.55 |

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).

CDIL strives for continuous improvement and reserves the right to change the specifications of its products without prior notice.

CDIL is a registered Trademark of
Continental Device India Limited
C-120 Naraina Industrial Area, New Delhi 110 028, India.
Telephone + 91-11-2579 6150, 4141 1112 Fax + 91-11-2579 5290, 4141 1119
email@cdil.com www.cdilsemi.com