



Micro Commercial Components
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**DL4728A
THRU
DL4761A**

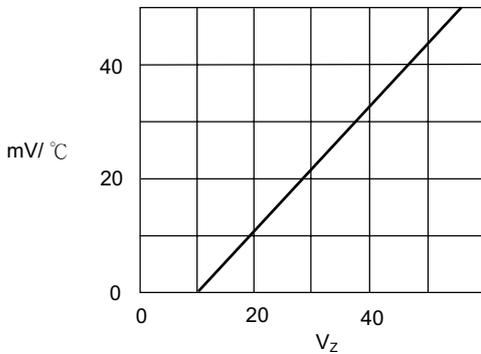
Features

- High Reliability
- Very Sharp Reverse Characteristic
- Low Reverse Current Level
- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix designates RoHS Compliant. See ordering information)
- Moisture Sensitivity Level 1

Maximum Ratings

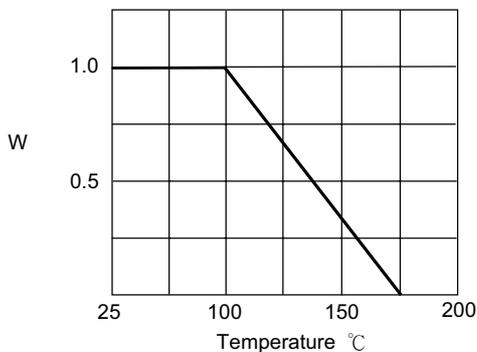
- Operating Temperature: -65 °C to +175 °C
- Storage Temperature: -65 °C to +175 °C
- 1 Watt DC Power Dissipation
- Maximum Thermal Resistance: 100K/W Junction To Ambient
Test Conditions: $I = 9.5\text{mm}(3/8")$, $T_L = \text{constant}$
- Maximum Forward Voltage @ 200mA: 1.2 Volts

Figure 1 - Typical Temperature Coefficient



Typical Temperature Coefficient (mV/°C) – versus – Zener Voltage (V_z)

Figure 2 - Derating Curve

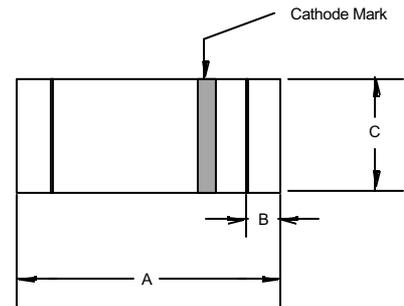


Power Dissipation (W) - Versus - Temperature °C

Notes: 1. Lead in Glass Exemption Applied, see EU Directive Annex Notes 7(C)-I.

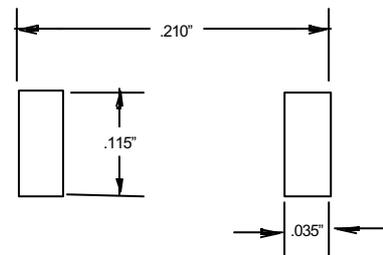
**1 Watt
Zener Diode
3.3 to 75 Volts**

GLASS MELF



| DIM | INCHES | | MM | | NOTE |
|-----|--------|------|------|------|---------|
| | MIN | MAX | MIN | MAX | |
| A | .190 | .205 | 4.80 | 5.20 | |
| B | --- | .022 | --- | .55 | Nominal |
| C | .095 | .105 | 2.40 | 2.67 | ∅ |

SUGGESTED SOLDER PAD LAYOUT



DL4728A thru DL4761A

ELECTRICAL CHARACTERISTICS @25°C

| MCC PART NUMBER | ZENER VOLTAGE V_Z VOLTS | TEST CURRENT I_{ZT} mA | MAXIMUM DYNAMIC IMPEDANCE $Z_{ZT} @ I_{ZT}$ OHMS | MAXIMUM REVERSE CURRENT $I_R @ V_R$ μ A | TEST VOLTAGE V_R VOLTS | MAXIMUM REGULATOR CURRENT I_{ZM} TA = 50°C mA | MAXIMUM KNEE IMPEDANCE $Z_{ZK} @ I_{ZK}$ OHMS | TEST CURRENT I_{ZK} mA | MAXIMUM SURGE CURRENT I_S mA |
|-----------------|------------------------------|-----------------------------|---|--|-----------------------------|---|--|-----------------------------|-----------------------------------|
| DL4728A | 3.3 | 76 | 10 | 100 | 1 | 276 | 400 | 1.0 | 1280 |
| DL4729A | 3.6 | 69 | 10 | 100 | 1 | 252 | 400 | 1.0 | 1260 |
| DL4730A | 3.9 | 64 | 9 | 50 | 1 | 234 | 400 | 1.0 | 1190 |
| DL4731A | 4.3 | 58 | 9 | 10 | 1 | 217 | 400 | 1.0 | 1070 |
| DL4732A | 4.7 | 53 | 8 | 10 | 1 | 193 | 500 | 1.0 | 970 |
| DL4733A | 5.1 | 49 | 7 | 10 | 1 | 178 | 550 | 1.0 | 890 |
| DL4734A | 5.6 | 45 | 5 | 10 | 2 | 162 | 600 | 1.0 | 810 |
| DL4735A | 6.2 | 41 | 2 | 10 | 3 | 146 | 700 | 1.0 | 730 |
| DL4736A | 6.8 | 37 | 3.5 | 10 | 4 | 133 | 700 | 1.0 | 660 |
| DL4737A | 7.5 | 34 | 4.0 | 10 | 5 | 121 | 700 | 0.5 | 605 |
| DL4738A | 8.2 | 31 | 4.5 | 10 | 6 | 110 | 700 | 0.5 | 550 |
| DL4739A | 9.1 | 28 | 5.0 | 10 | 7 | 100 | 700 | 0.5 | 500 |
| DL4740A | 10 | 25 | 7 | 10 | 7.6 | 91 | 700 | 0.25 | 454 |
| DL4741A | 11 | 23 | 8 | 5 | 8.4 | 83 | 700 | 0.25 | 414 |
| DL4742A | 12 | 21 | 9 | 5 | 9.1 | 76 | 700 | 0.25 | 380 |
| DL4743A | 13 | 19 | 10 | 5 | 9.9 | 69 | 700 | 0.25 | 344 |
| DL4744A | 15 | 17 | 14 | 5 | 11.4 | 61 | 700 | 0.25 | 304 |
| DL4745A | 16 | 15.5 | 16 | 5 | 12.2 | 57 | 700 | 0.25 | 285 |
| DL4746A | 18 | 14 | 20 | 5 | 13.7 | 50 | 750 | 0.25 | 250 |
| DL4747A | 20 | 12.5 | 22 | 5 | 15.2 | 45 | 750 | 0.25 | 225 |
| DL4748A | 22 | 11.5 | 23 | 5 | 16.7 | 41 | 750 | 0.25 | 205 |
| DL4749A | 24 | 10.5 | 25 | 5 | 18.2 | 38 | 750 | 0.25 | 190 |
| DL4750A | 27 | 9.5 | 35 | 5 | 20.6 | 34 | 750 | 0.25 | 170 |
| DL4751A | 30 | 8.5 | 40 | 5 | 22.8 | 30 | 1000 | 0.25 | 150 |
| DL4752A | 33 | 7.5 | 45 | 5 | 25.1 | 27 | 1000 | 0.25 | 135 |
| DL4753A | 36 | 7.0 | 50 | 5 | 27.4 | 25 | 1000 | 0.25 | 125 |
| DL4754A | 39 | 6.5 | 60 | 5 | 29.7 | 23 | 1000 | 0.25 | 115 |
| DL4755A | 43 | 6.0 | 70 | 5 | 32.7 | 22 | 1500 | 0.25 | 110 |
| DL4756A | 47 | 5.5 | 80 | 5 | 35.8 | 19 | 1500 | 0.25 | 95 |
| DL4757A | 51 | 5.0 | 95 | 5 | 38.8 | 18 | 1500 | 0.25 | 90 |
| DL4758A | 56 | 4.5 | 110 | 5 | 42.6 | 16 | 2000 | 0.25 | 80 |
| DL4759A | 62 | 4.0 | 125 | 5 | 47.1 | 14 | 2000 | 0.25 | 70 |
| DL4760A | 68 | 3.7 | 150 | 5 | 51.7 | 13 | 2000 | 0.25 | 65 |
| DL4761A | 75 | 3.3 | 175 | 5 | 56.0 | 12 | 2000 | 0.25 | 60 |

NOTE 1 The JEDEC type numbers shown have A 5% tolerance on nominal zener voltage.

Suffix A signifies 5% tolerance, C signifies 2% tolerance.

NOTE 2 The zener impedance is derived from the 60Hz 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 on I_{ZT} or I_{ZK} . Zener impedance is measured at two points to insure a sharp knee on the breakdown curve and eliminate unstable units.

NOTE 3 The reverse surge current is measured at 25°C ambient using a 1/2 square wave or equivalent sine wave pulse 1/120 second duration superimposed on I_{ZT}

NOTE 4 Voltage measurements to be performed 90 seconds after application of DC current.



Micro Commercial Components

Ordering Information :

| Device | Packing |
|----------------|-----------------------|
| Part Number-TP | Tape&Reel: 5Kpcs/Reel |

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