Elektronische Bauelemente

# DL47xxA Series

**1W , MELF**

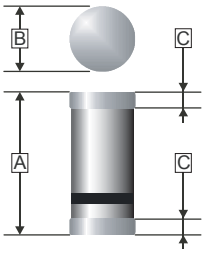
**Surface Mount Zener Diodes**

RoHS Compliant Product
A suffix of “-C” specifies halogen & lead-free

## FEATURES

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

**MELF**




| REF. | Millimeter | |
|---|---|---|
| | Min. | Max. |
| A | 4.80 | 5.20 |
| B | 2.39 | 2.66 |
| C | 0.41 | 0.55 |

## ABSOLUTE MAXIMUM RATINGS ($T_A$=25°C unless otherwise specified)

| Parameter | Symbol | Rating | Unit |
|---|---|---|---|
| Thermal Resistance Junction to Ambient | $R_{\theta JA}$ | 170 | °C / W |
| Power Dissipation | $P_D$ | 1 | W |
| Operating and Storage Temperature Range | $T_J$, $T_{STG}$ | 175, -65~200 | °C |

Notes:
1. These ratings are limiting values above which the service ability of the diode may be impaired.

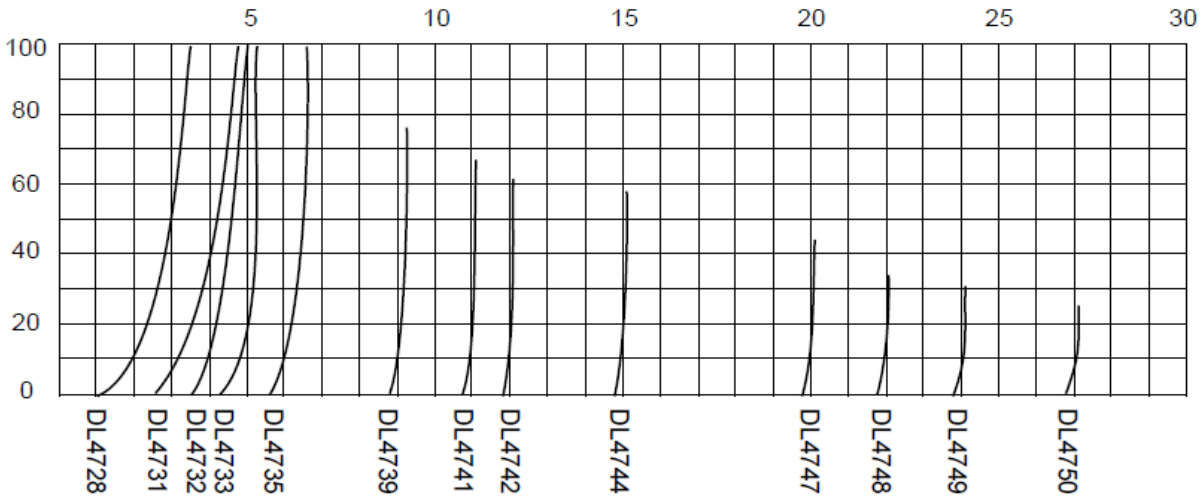
## ELECTRICAL RATINGS ($T_A$=25°C unless otherwise specified)

| Type Number | Zener Voltage Range | | Zener Impedance | | | Leakage Current | |
|---|---|---|---|---|---|---|---|
| | $V_Z$ @ $I_{ZT}$ | $I_{ZT}$ | $Z_{ZT}$ @ $I_{ZT}$ | $I_{ZK}$ | $Z_{ZK}$ @ $I_{ZK}$ | $I_R$ @ $V_R$ | $V_R$ |
| | Nom(V) | mA | Ω(MAX) | | | μA(MAX) | V |
| DL4728A | 3.3 | 76 | 10 | 1 | 400 | 100 | 1 |
| DL4729A | 3.6 | 69 | 10 | 1 | 400 | 100 | 1 |
| DL4730A | 3.9 | 64 | 9 | 1 | 400 | 50 | 1 |
| DL4731A | 4.3 | 58 | 9 | 1 | 400 | 10 | 1 |
| DL4732A | 4.7 | 53 | 8 | 1 | 500 | 10 | 1 |
| DL4733A | 5.1 | 49 | 7 | 1 | 550 | 10 | 1 |
| DL4734A | 5.6 | 45 | 5 | 1 | 600 | 10 | 2 |
| DL4735A | 6.2 | 41 | 2 | 1 | 700 | 10 | 3 |
| DL4736A | 6.8 | 37 | 3.5 | 1 | 700 | 10 | 4 |
| DL4737A | 7.5 | 34 | 4 | 0.5 | 700 | 10 | 5 |
| DL4738A | 8.2 | 31 | 4.5 | 0.5 | 700 | 10 | 6 |
| DL4739A | 9.1 | 28 | 5 | 0.5 | 700 | 10 | 7 |
| DL4740A | 10 | 25 | 7 | 0.25 | 700 | 10 | 7.6 |
| DL4741A | 11 | 23 | 8 | 0.25 | 700 | 5 | 8.4 |
| DL4742A | 12 | 21 | 9 | 0.25 | 700 | 5 | 9.1 |
| DL4743A | 13 | 19 | 10 | 0.25 | 700 | 5 | 9.9 |
| DL4744A | 15 | 17 | 14 | 0.25 | 700 | 5 | 11.4 |
| DL4745A | 16 | 15.5 | 16 | 0.25 | 700 | 5 | 12.2 |
| DL4746A | 18 | 14 | 20 | 0.25 | 700 | 5 | 13.7 |
| DL4747A | 20 | 12.5 | 22 | 0.25 | 750 | 5 | 15.2 |
| DL4748A | 22 | 11.5 | 23 | 0.25 | 750 | 5 | 16.7 |
| DL4749A | 24 | 10.5 | 25 | 0.25 | 750 | 5 | 18.2 |
| DL4750A | 27 | 9.5 | 35 | 0.25 | 750 | 5 | 20.6 |
| DL4751A | 30 | 8.5 | 40 | 0.25 | 1000 | 5 | 22.8 |
| DL4752A | 33 | 7.5 | 45 | 0.25 | 1000 | 5 | 25.1 |
| DL4753A | 36 | 7 | 50 | 0.25 | 1000 | 5 | 27.4 |
| DL4754A | 39 | 6.5 | 60 | 0.25 | 1000 | 5 | 29.7 |
| DL4755A | 43 | 6 | 70 | 0.25 | 1500 | 5 | 32.7 |
| DL4756A | 47 | 5.5 | 80 | 0.25 | 1500 | 5 | 35.8 |
| DL4757A | 51 | 5 | 95 | 0.25 | 1500 | 5 | 38.8 |
| DL4758A | 56 | 4.5 | 110 | 0.25 | 2000 | 5 | 42.6 |
| $V_F$ Forward Voltage=1.2V Maximum @ $I_F$=200mA for all types | | | | | | | |

Notes:
1. The device numbers listed have a standard tolerance on the nominal zener voltage of ±5%.
2. 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 ($I_{ZT}$ or $I_{ZK}$) is superimposed to $I_{ZT}$ or $I_{ZK}$.

## CHARACTERISTIC CURVES

**Breakdown Characteristics**




**Admissible power dissipation versus ambient temperature**

Valid provided that leads are kept at ambient temperature at distance of 10 mm from case

