

LL41 SURFACE MOUNT ZENER DIODES

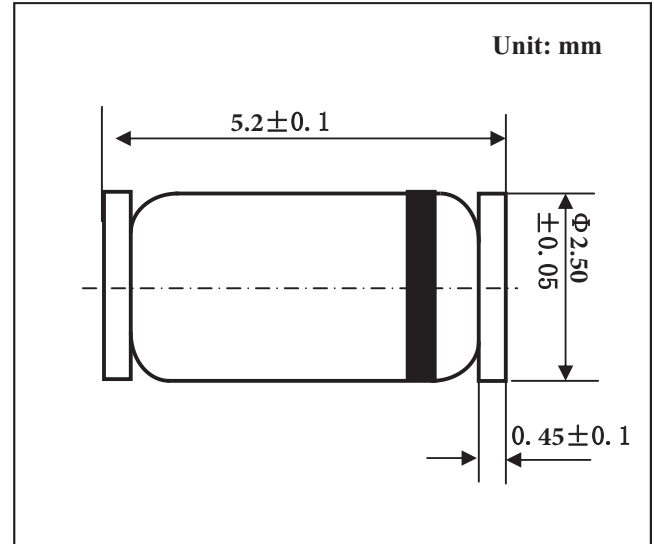
ZENER VOLTAGE RANGE: 3.3 --- 100V PEAK PULSE POWER:1000mW

FEATURES

- Low Reverse Leakage
- Low Zener Impedance
- Glass passivated junction
- High Stability and High Reliability

MECHANICAL DATA

- Case: LL-41 (GLASS) molded glass body
- Polarity: Color band denotes cathode end
- Mounting Position: Any



MAXIMUM RATINGS AND CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified

| Parameters | Symbol | Value | Unit |
|--------------------------------|--------|--------------------|------|
| Power Dissipation | Pd | 1000 ¹⁾ | mW |
| Operating junction temperature | Tj | 175 | °C |
| Storage temperature range | Ts | -55-+150 | °C |

1) Valid provided that leads are kept at ambient temperature at a distance of 8mm from case

Electrical Specification (T_A=25°C unless otherwise specified)

| TYPE | Zener Voltage | | Reverse Current | | Dynamic Resistance | |
|----------|---------------|----------------|-----------------|----------------|--------------------|----------------|
| | Vz(V) | Test Condition | IR(μA) | Test Condition | rd(Ω) | Test Condition |
| | nom | Iz(mA) | Max. | VR(V) | Max. | Iz(mA) |
| DL4728A | 3.3 | 76.0 | 100 | 1.0 | 10 | 76.0 |
| DL 4729A | 3.6 | 69.0 | 100 | 1.0 | 10 | 69.0 |
| DL 4730A | 3.9 | 64.0 | 50 | 1.0 | 9 | 64.0 |
| DL 4731A | 4.3 | 58.0 | 10 | 1.0 | 9 | 58.0 |
| DL 4732A | 4.7 | 53.0 | 10 | 1.0 | 8 | 53.0 |
| DL 4733A | 5.1 | 49.0 | 10 | 1.0 | 7 | 49.0 |
| DL 4734A | 5.6 | 45.0 | 10 | 2.0 | 5 | 45.0 |
| DL 4735A | 6.2 | 41.0 | 10 | 3.0 | 2 | 41.0 |

Electrical Specification (T_A=25°C unless otherwise specified)

| TYPE | Zener Voltage | | Reverse Current | | Dynamic Resistance | |
|----------|--------------------|---------------------|---------------------|--------------------|--------------------|---------------------|
| | V _Z (V) | Test Condition | I _R (μA) | Test Condition | r _d (Ω) | Test Condition |
| | nom | I _Z (mA) | Max. | V _R (V) | Max. | I _Z (mA) |
| DL 4736A | 6.8 | 37.0 | 10 | 4.0 | 3.5 | 37.0 |
| DL 4737A | 7.5 | 34.0 | 10 | 5.0 | 4 | 34.0 |
| DL 4738A | 8.2 | 31.0 | 10 | 6.0 | 4.5 | 31.0 |
| DL 4739A | 9.1 | 28.0 | 10 | 7.0 | 5 | 28.0 |
| DL 4740A | 10 | 25.0 | 10 | 7.6 | 7 | 25.0 |
| DL 4741A | 11 | 23.0 | 5 | 8.4 | 8 | 23.0 |
| DL 4742A | 12 | 21.0 | 5 | 9.1 | 9 | 21.0 |
| DL 4743A | 13 | 19.0 | 5 | 9.9 | 10 | 19.0 |
| DL 4744A | 15 | 17.0 | 5 | 11.4 | 14 | 17.0 |
| DL 4745A | 16 | 15.5 | 5 | 12.2 | 16 | 15.5 |
| DL 4746A | 18 | 14.0 | 5 | 13.7 | 20 | 14.0 |
| DL 4747A | 20 | 12.5 | 5 | 15.2 | 22 | 12.5 |
| DL 4748A | 22 | 11.5 | 5 | 16.7 | 23 | 11.5 |
| DL 4749A | 24 | 10.5 | 5 | 18.2 | 25 | 10.5 |
| DL 4750A | 27 | 9.5 | 5 | 20.6 | 35 | 9.5 |
| DL 4751A | 30 | 8.5 | 5 | 22.8 | 40 | 8.5 |
| DL 4752A | 33 | 7.5 | 5 | 25.1 | 45 | 7.5 |
| DL 4753A | 36 | 7.0 | 5 | 27.4 | 50 | 7.0 |
| DL 4754A | 39 | 6.5 | 5 | 29.7 | 60 | 6.5 |
| DL 4755A | 43 | 6.0 | 5 | 32.7 | 70 | 6.0 |
| DL 4756A | 47 | 5.5 | 5 | 35.8 | 80 | 5.5 |
| DL 4757A | 51 | 5.0 | 5 | 38.8 | 95 | 5.0 |
| DL 4758A | 56 | 4.5 | 5 | 42.6 | 110 | 4.5 |
| DL 4759A | 62 | 4.0 | 5 | 47.1 | 125 | 4.0 |
| DL 4760A | 68 | 3.7 | 5 | 51.7 | 150 | 3.7 |
| DL 4761A | 75 | 3.3 | 5 | 56.0 | 175 | 3.3 |
| DL 4762A | 82 | 3.0 | 5 | 62.2 | 200 | 3.0 |
| DL 4763A | 91 | 2.8 | 5 | 69.2 | 250 | 2.8 |
| DL 4764A | 100 | 2.5 | 5 | 76.0 | 350 | 2.5 |

Notes:

1) Valid provided that leads at a distance of 8 mm from case are kept at ambient temperature.

2) Measured under thermal equilibrium and DC test conditions.

3) The rating listed in the electrical characteristics table is maximum peak, non-repetitive,

reverse surge current of 1/2 square wave or equiv-alent sine wave pulse of 1/120 second duration superimposed on the test current, I_{ZT}, per JEDEC registration; however, actual device capability is as described in Figure 5 of the General Data-DO-41 Glass.

4) Tested with pulses t_p = 20 ms.

5) V_F(Max)=1.20V@ I_F=200mA

* Measure under thermal equilibrium and DC current test conditions(T_A=25°C)

Tolerance on nominal V_Z value: ±5%.

Tight tolerances on preferred voltages: DL47...C: ±2%;

DL47...D: ±1%.

These diodes are also available in DO-41 case with the type designation 1N4728...1N4764