

# DATA SHEET

## DL4728A~DL4764A

### SURFACE MOUNT ZENER DIODES

|                |                         |              |                  |
|----------------|-------------------------|--------------|------------------|
| <b>VOLTAGE</b> | <b>3.3 to 100 Volts</b> | <b>POWER</b> | <b>1.0 Watts</b> |
|----------------|-------------------------|--------------|------------------|

|                   |                         |
|-------------------|-------------------------|
| <b>MELF/DL-41</b> | <b>Unit : inch (mm)</b> |
|-------------------|-------------------------|

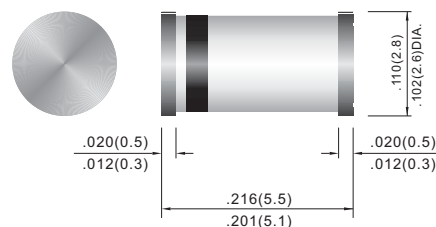
#### FEATURES

- Low profile package
- Built-in strain relief
- Low inductance

#### MECHANICAL DATA

- Case: Molded Glass MELF / DL-41
- Terminals: Solderable per MIL-STD-202E, Method 208
- Polarity: See Diagram Below
- Approx. Weight: 0.008 grams
- Mounting Position: Any
- Packing information

T/R - 5K per 13" paper Reel



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

| Parameter                                                                                   | Symbol           | Value        | Units |
|---------------------------------------------------------------------------------------------|------------------|--------------|-------|
| Power Dissipation at Tamb = 25 °C                                                           | P <sub>TOT</sub> | 1*           | W     |
| Junction Temperature                                                                        | T <sub>J</sub>   | 200          | °C    |
| Storage Temperature Range                                                                   | T <sub>STG</sub> | -65 to + 200 | °C    |
| *Valid provided that leads at a distance of 10mm from case are kept at ambient temperature. |                  |              |       |

| Parameter                                                                                   | Symbol           | Min. | Typ. | Max. | Units |
|---------------------------------------------------------------------------------------------|------------------|------|------|------|-------|
| Thermal Resistance Junction to Ambient Air                                                  | R <sub>thA</sub> | --   | --   | 170* | K/W   |
| Forward Voltage at IF = 200mA                                                               | V <sub>F</sub>   | --   | --   | 1.2  | V     |
| *Valid provided that leads at a distance of 10mm from case are kept at ambient temperature. |                  |      |      |      |       |

| Part Number                                          | Maximum Zener Voltage            |        |        | Maximum Zener Impedance           |      |                                   |      | Maximum Leakage Current         |      |
|------------------------------------------------------|----------------------------------|--------|--------|-----------------------------------|------|-----------------------------------|------|---------------------------------|------|
|                                                      | V <sub>Z</sub> @ I <sub>ZT</sub> |        |        | Z <sub>ZT</sub> @ I <sub>ZT</sub> |      | Z <sub>ZK</sub> @ I <sub>ZK</sub> |      | I <sub>R</sub> @ V <sub>R</sub> |      |
|                                                      | Nom. V                           | Min. V | Max. V | Ω                                 | mA   | Ω                                 | mA   | uA                              | V    |
| <b>1.0 watt Zener Diodes (Glass Sealed Envelope)</b> |                                  |        |        |                                   |      |                                   |      |                                 |      |
| DL4728A                                              | 3.3                              | 3.1    | 3.5    | 10.0                              | 76.0 | 400                               | 1.00 | 100                             | 1.0  |
| DL4729A                                              | 3.6                              | 3.4    | 3.8    | 10.0                              | 69.0 | 400                               | 1.00 | 100                             | 1.0  |
| DL4730A                                              | 3.9                              | 3.7    | 4.1    | 9.0                               | 64.0 | 400                               | 1.00 | 50                              | 1.0  |
| DL4731A                                              | 4.3                              | 4.1    | 4.5    | 9.0                               | 58.0 | 400                               | 1.00 | 10                              | 1.0  |
| DL4732A                                              | 4.7                              | 4.5    | 4.9    | 8.0                               | 53.0 | 500                               | 1.00 | 10                              | 1.0  |
| DL4733A                                              | 5.1                              | 4.8    | 5.4    | 7.0                               | 49.0 | 550                               | 1.00 | 10                              | 1.0  |
| DL4734A                                              | 5.6                              | 5.3    | 5.9    | 5.0                               | 45.0 | 600                               | 1.00 | 10                              | 2.0  |
| DL4735A                                              | 6.2                              | 5.9    | 6.5    | 2.0                               | 41.0 | 700                               | 1.00 | 10                              | 3.0  |
| DL4736A                                              | 6.8                              | 6.5    | 7.1    | 3.5                               | 37.0 | 700                               | 1.00 | 10                              | 4.0  |
| DL4737A                                              | 7.5                              | 7.1    | 7.9    | 4.0                               | 34.0 | 700                               | 0.50 | 10                              | 5.0  |
| DL4738A                                              | 8.2                              | 7.8    | 8.6    | 4.5                               | 31.0 | 700                               | 0.50 | 10                              | 6.0  |
| DL4739A                                              | 9.1                              | 8.6    | 9.6    | 5.0                               | 28.0 | 700                               | 0.50 | 10                              | 7.0  |
| DL4740A                                              | 10.0                             | 9.5    | 10.5   | 7.0                               | 25.0 | 700                               | 0.25 | 10                              | 7.6  |
| DL4741A                                              | 11.0                             | 10.5   | 11.6   | 8.0                               | 23.0 | 700                               | 0.25 | 5                               | 8.4  |
| DL4742A                                              | 12.0                             | 11.4   | 12.6   | 9.0                               | 21.0 | 700                               | 0.25 | 5                               | 9.1  |
| DL4743A                                              | 13.0                             | 12.4   | 13.7   | 10.0                              | 19.0 | 700                               | 0.25 | 5                               | 9.9  |
| DL4744A                                              | 15.0                             | 14.3   | 15.8   | 14.0                              | 17.0 | 700                               | 0.25 | 5                               | 11.4 |
| DL4745A                                              | 16.0                             | 15.2   | 16.8   | 16.0                              | 15.5 | 700                               | 0.25 | 5                               | 12.2 |
| DL4746A                                              | 18.0                             | 17.1   | 18.9   | 20.0                              | 14.0 | 750                               | 0.25 | 5                               | 13.7 |
| DL4747A                                              | 20.0                             | 19.0   | 21.0   | 22.0                              | 12.5 | 750                               | 0.25 | 5                               | 15.2 |
| DL4748A                                              | 22.0                             | 20.9   | 23.1   | 23.0                              | 11.5 | 750                               | 0.25 | 5                               | 16.7 |
| DL4749A                                              | 24.0                             | 22.8   | 25.2   | 25.0                              | 10.5 | 750                               | 0.25 | 5                               | 18.2 |
| DL4750A                                              | 27.0                             | 25.7   | 28.4   | 35.0                              | 9.5  | 750                               | 0.25 | 5                               | 20.6 |
| DL4751A                                              | 30.0                             | 28.5   | 31.5   | 40.0                              | 8.5  | 1000                              | 0.25 | 5                               | 22.8 |
| DL4752A                                              | 33.0                             | 31.4   | 34.7   | 45.0                              | 7.5  | 1000                              | 0.25 | 5                               | 25.1 |
| DL4753A                                              | 36.0                             | 34.2   | 37.8   | 50.0                              | 7.0  | 1000                              | 0.25 | 5                               | 27.4 |
| DL4754A                                              | 39.0                             | 37.1   | 41.0   | 60.0                              | 6.5  | 1000                              | 0.25 | 5                               | 29.7 |
| DL4755A                                              | 43.0                             | 40.9   | 45.2   | 70.0                              | 6.0  | 1500                              | 0.25 | 5                               | 32.7 |
| DL4756A                                              | 47.0                             | 44.7   | 49.4   | 80.0                              | 5.5  | 1500                              | 0.25 | 5                               | 35.8 |
| DL4757A                                              | 51.0                             | 48.5   | 53.6   | 95.0                              | 5.0  | 1500                              | 0.25 | 5                               | 38.8 |
| DL4758A                                              | 56.0                             | 53.2   | 58.8   | 110.0                             | 4.5  | 2000                              | 0.25 | 5                               | 42.6 |
| DL4759A                                              | 62.0                             | 58.9   | 65.1   | 125.0                             | 4.0  | 2000                              | 0.25 | 5                               | 47.1 |
| DL4760A                                              | 68.0                             | 64.6   | 71.4   | 150.0                             | 3.7  | 2000                              | 0.25 | 5                               | 51.7 |
| DL4761A                                              | 75.0                             | 71.3   | 78.8   | 175.0                             | 3.3  | 2000                              | 0.25 | 5                               | 56.0 |
| DL4762A                                              | 82.0                             | 77.9   | 86.1   | 200.0                             | 3.0  | 3000                              | 0.25 | 5                               | 62.2 |
| DL4763A                                              | 91.0                             | 86.5   | 95.6   | 250.0                             | 2.8  | 3000                              | 0.25 | 5                               | 69.2 |
| DL4764A                                              | 100.0                            | 95.0   | 105.0  | 350.0                             | 2.5  | 3000                              | 0.25 | 5                               | 76.0 |

## RATING AND CHARACTERISTIC CURVES

