


**SURFACE MOUNT M.E.L.F
ZENER DIODE**

FEATURES

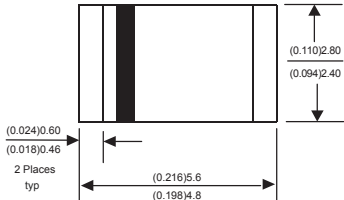
- * Through-Hole Device Type Mounting
- * Hermetically Sealed Glass
- * Compression Bonded Construction
- * All external surfaces are corrosion resistant and leads are readily solderable

MECHANICAL DATA

- * Package : LL-41 (MELF)
- * Case : Hermetically Sealed Glass
- * Lead : Tin



LL-41



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS
Ratings at 25 °C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

MAXIMUM RATINGS (@ TA = 25°C unless otherwise noted)

| CHARACTERISTICS | SYMBOL | Ratings | UNITS |
|--|---------------------|------------|-------|
| Power Dissipation | PTOT | 1 | W |
| Thermal Resis | R _{th} J/A | 170 | K / W |
| Tolerance | - | 5 | % |
| Forward Voltage@I _f = 100mA | V _f | 1.0 | V |
| Junction Temp | T _J | 200 | °C |
| Storage Temp | T _{stg} | -65 to 200 | °C |

ELECTRICAL CHARACTERISTICS (@ TA = 25°C unless otherwise noted)

| TYPE | ZENER VOLTAGE | | MAX ZENER IMPEDANCE @I _{ZT} | | MAX ZENER IMPEDANCE @I _{ZK} | | MAXIMUM REVERSE CURRENT | | MAXIMUM REGULATOR CURRENT |
|---------|--------------------|----------------------|--------------------------------------|----------------------|--------------------------------------|----------------------|-------------------------|---------------------|---------------------------|
| | V _Z (V) | I _{ZT} (mA) | Z _{ZT} (Ω) | I _{ZT} (mA) | Z _{ZK} (Ω) | I _{ZK} (mA) | V _R (V) | I _R (μA) | I _{ZM} (mA) |
| DL4728A | 3.3 | 76 | 10 | 76 | 400 | 1.0 | 1.0 | 100 | 276 |
| DL4729A | 3.6 | 69 | 10 | 69 | 400 | 1.0 | 1.0 | 100 | 252 |
| DL4730A | 3.9 | 64 | 9 | 64 | 400 | 1.0 | 1.0 | 50 | 234 |
| DL4731A | 4.3 | 58 | 9 | 58 | 400 | 1.0 | 1.0 | 10 | 217 |
| DL4732A | 4.7 | 53 | 8 | 53 | 500 | 1.0 | 1.0 | 10 | 193 |
| DL4733A | 5.1 | 49 | 7 | 49 | 550 | 1.0 | 1.0 | 10 | 178 |
| DL4734A | 5.6 | 45 | 5 | 45 | 600 | 1.0 | 2.0 | 10 | 162 |
| DL4735A | 6.2 | 41 | 2 | 41 | 700 | 1.0 | 3.0 | 10 | 146 |
| DL4736A | 6.8 | 37 | 3.5 | 37 | 700 | 1.0 | 4.0 | 10 | 133 |
| DL4737A | 7.5 | 34 | 4 | 34 | 700 | 0.5 | 5.0 | 10 | 121 |
| DL4738A | 8.2 | 31 | 4.5 | 31 | 700 | 0.5 | 6.0 | 10 | 110 |
| DL4739A | 9.1 | 28 | 5 | 28 | 700 | 0.5 | 7.0 | 10 | 100 |

ELECTRICAL CHARACTERISTICS (@ TA = 25°C unless otherwise noted)

| TYPE | ZENER VOLTAGE | | MAX ZENER IMPEDANCE @IzT | | MAX ZENER IMPEDANCE @Izk | | MAX IMUM REVERSE CURRENT | | MAX IMUM REGULATOR CURRENT |
|---------|---------------|---------|--------------------------|---------|--------------------------|---------|--------------------------|--------------|----------------------------|
| | Vz(V) | Izt(mA) | ZzT(Ω) | IzT(mA) | Zzk(Ω) | Izk(mA) | VR(V) | IR(μ A) | IzM(mA) |
| DL4740A | 10 | 25 | 7 | 25 | 700 | 0.25 | 7.6 | 10 | 91 |
| DL4741A | 11 | 23 | 8 | 23 | 700 | 0.25 | 8.4 | 5 | 83 |
| DL4742A | 12 | 21 | 9 | 21 | 700 | 1.0 | 9.1 | 5 | 76 |
| DL4743A | 13 | 19 | 10 | 19 | 700 | 1.0 | 9.9 | 5 | 69 |
| DL4744A | 15 | 17 | 14 | 17 | 700 | 1.0 | 11.4 | 5 | 61 |
| DL4745A | 16 | 15.5 | 16 | 15.5 | 700 | 1.0 | 12.2 | 5 | 57 |
| DL4746A | 18 | 14 | 20 | 14 | 750 | 1.0 | 13.7 | 5 | 50 |
| DL4747A | 20 | 12.5 | 22 | 12.5 | 750 | 1.0 | 15.2 | 5 | 45 |
| DL4748A | 22 | 11.5 | 23 | 11.5 | 750 | 1.0 | 16.7 | 5 | 41 |
| DL4749A | 24 | 10.5 | 25 | 10.5 | 750 | 1.0 | 18.2 | 5 | 38 |
| DL4750A | 27 | 9.5 | 35 | 9.5 | 750 | 1.0 | 20.6 | 5 | 34 |
| DL4751A | 30 | 8.5 | 40 | 8.5 | 1000 | 0.5 | 22.8 | 5 | 30 |
| DL4752A | 33 | 7.5 | 45 | 7.5 | 1000 | 0.5 | 25.1 | 5 | 27 |
| DL4753A | 36 | 7.0 | 50 | 7.0 | 1000 | 0.5 | 27.4 | 5 | 25 |
| DL4754A | 39 | 6.5 | 60 | 6.5 | 1000 | 0.25 | 29.7 | 5 | 23 |
| DL4755A | 43 | 6.0 | 70 | 6.0 | 1500 | 0.25 | 32.7 | 5 | 22 |
| DL4756A | 47 | 5.5 | 80 | 5.5 | 1500 | 0.25 | 35.8 | 5 | 19 |
| DL4757A | 51 | 5.0 | 95 | 5.0 | 1500 | 0.25 | 38.8 | 5 | 18 |
| DL4758A | 56 | 4.5 | 110 | 4.5 | 2000 | 0.25 | 42.6 | 5 | 16 |
| DL4759A | 62 | 4.0 | 125 | 4.0 | 2000 | 0.25 | 47.1 | 5 | 14 |
| DL4760A | 68 | 3.7 | 150 | 3.7 | 2000 | 0.25 | 51.7 | 5 | 13 |
| DL4761A | 75 | 3.3 | 175 | 3.3 | 2000 | 0.25 | 56.0 | 5 | 12 |
| DL4762A | 82 | 3.0 | 200 | 3.0 | 3000 | 0.25 | 62.2 | 5 | 11 |
| DL4763A | 91 | 2.8 | 250 | 2.8 | 3000 | 0.25 | 69.2 | 5 | 10 |
| DL4764A | 100 | 2.5 | 350 | 2.5 | 3000 | 0.25 | 76.0 | 5 | 9 |

Note : "Fully ROHS compliant", "100% Sn plating (Pb-free)".

2009-02

RATING AND CHARACTERISTICS CURVES (DL4728A THRU DL4764A)

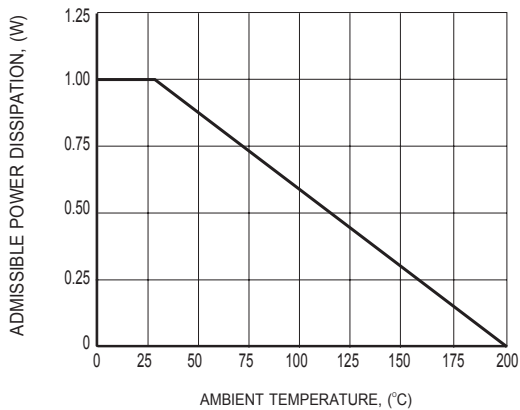


FIG.1 ADMISSIBLE POWER DISSIPATION vs. AMBIENT TEMPERATURE

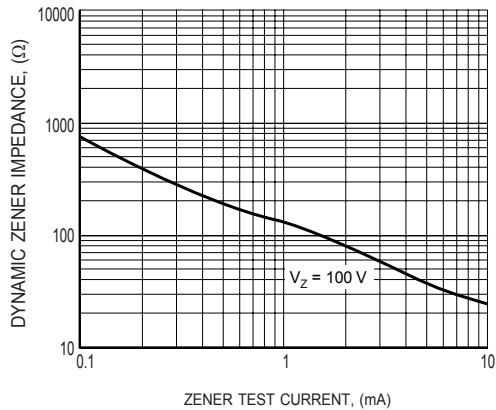


FIG.2 TYPICAL ZENER IMPEDANCE

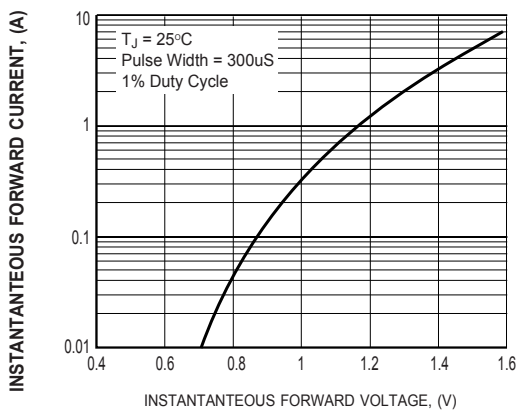


FIG.3 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

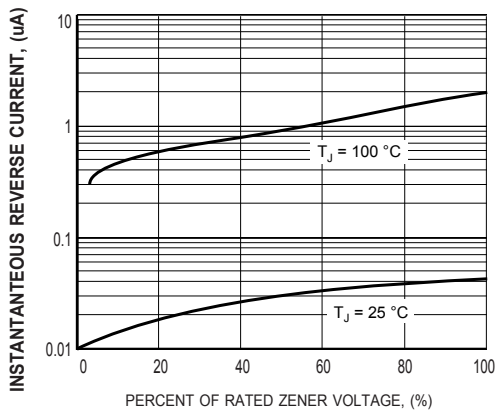


FIG.4 TYPICAL REVERSE CHARACTERISTICS

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