

| | |
|---|---|
| ZENER DIODE | REVERSE VOLTAGE - 4.3 to 100 Volts |
| <p>FEATURES</p> <ul style="list-style-type: none"> ● High reliability ● Very sharp reverse characteristic ● Low reverse current level ● Vz-tolerance±5% <p>APPLICATIONS</p> <ul style="list-style-type: none"> ● Voltage stabilization | <p>DL - 41</p> <p style="text-align: center;">Dimensions in inches and (millimeters)</p> |

ABSOLUTE MAXIMUM RATINGS

T_J=25°C

| Parameter | Test Conditions | Type | Symbol | Value | Unit |
|---------------------------|-------------------------|------|------------------|--------------------------------|------|
| Power dissipation | T _{amb} ≤ 50°C | | P _v | 1 | W |
| Z-current | | | I _z | P _v /V _z | mA |
| Junction temperature | | | T _j | 200 | °C |
| Storage temperature range | | | T _{stg} | -55 ~ +175 | °C |

MAXIMUM THERMAL RESISTANCE

T_J=25°C

| Parameter | Test Conditions | Symbol | Value | Unit |
|------------------|---------------------------|-------------------|-------|------|
| Junction ambient | l=9.5mm(3/8") TL=constant | R _{thJA} | 100 | K/W |

ELECTRICAL CHARACTERISTICS

T_J=25°C

| Parameter | Test Conditions | Type | Symbol | Min | Typ | Max | Unit |
|-----------------|-----------------------|------|----------------|-----|-----|-----|------|
| Forward voltage | I _F =200mA | | V _F | | | 1.2 | V |

| Symbol | Parameter |
|-----------------|---|
| V _Z | Reverse Zener Voltage @ I _{ZT} |
| I _{ZT} | Reverse current |
| Z _{ZT} | Maximum zener impedance @ I _{ZT} |
| I _{ZK} | Rever current |
| Z _{ZK} | Maximum zener impedance @ I _{Zk} |
| I _R | Reverse leakage current @ V _R |
| V _R | Breakdown voltage |
| I _F | Forward current |
| V _F | Forward voltage @ I _F |

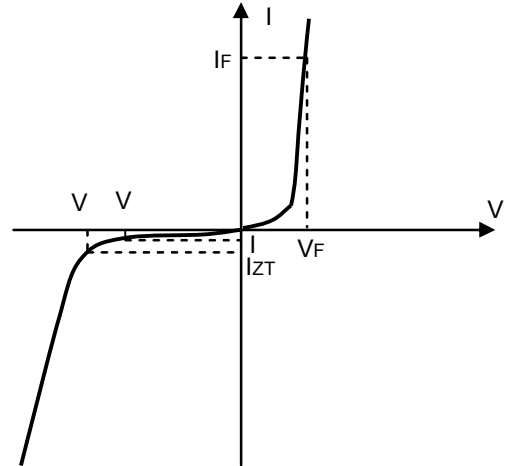


FIG. 1 - ZENER VOLTAGE REGULATOR

FIG. 2 - TEMPERATURE COEFFICIENTS
 (-55°C to +150°C temperature; 90% of the units are in the ranges indicated.)

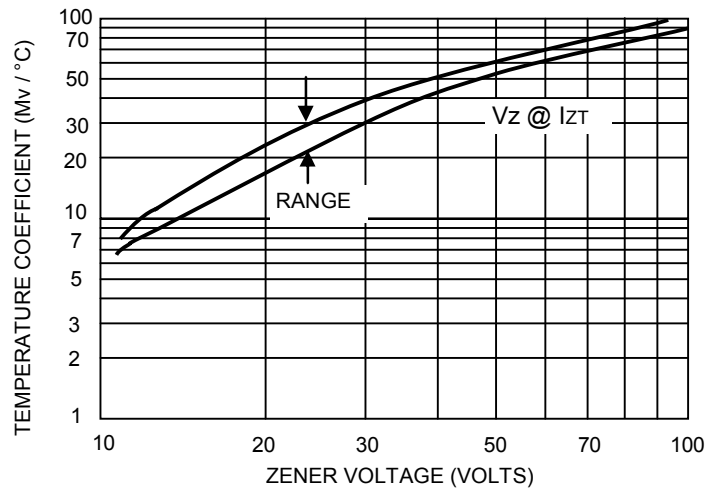
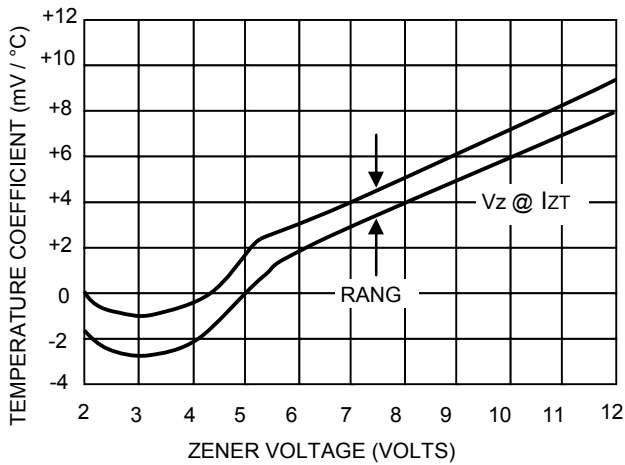
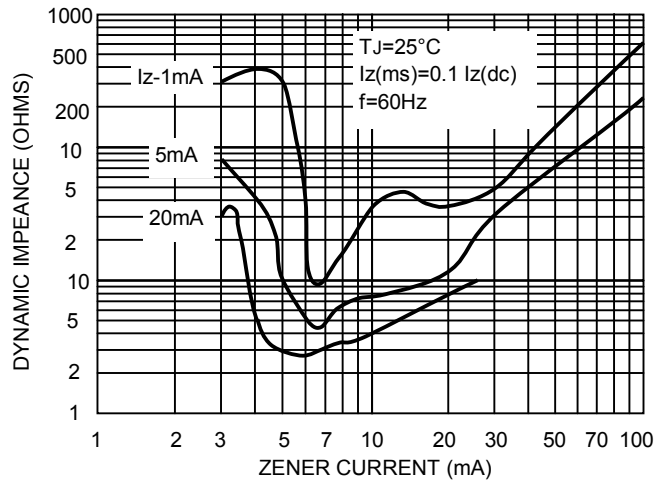
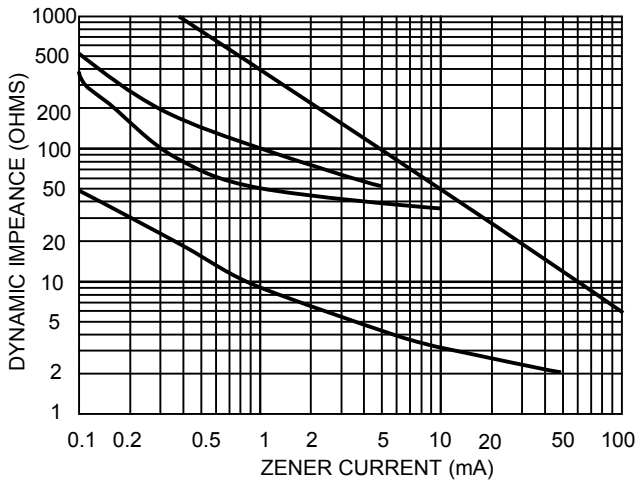


FIG. 3 - EFFECT OF ZENER CURRENT ON ZENER IMPEDANCE

FIG. 4 - EFFECT OF ZENER CURRENT ON ZENER IMPEDANCE





DL4731A thru DL4764A

1W ZENER DIODES/DO-35/DL-41(MELF)

OPERATING AND STORAGE TEMPERATURE -55°C to +200°C

| TYPE | Zener Nominal Voltage $V_Z @ I_{ZT}$ | Test Current I_{ZT} | Maximum Zener Impedance | | I_{ZK} | Maximum Reverse Leakage Current | | Maximum Surge Current I_R | Maximum Regulation Current I_{ZM} |
|---------|---|-----------------------------|----------------------------|-------------------|----------|------------------------------------|---------|--------------------------------------|--|
| | | | $Z_{ZT} @ I_{ZT}$ | $Z_{ZT} @ I_{ZK}$ | | I_R | @ V_R | | |
| | Volts | mA | Ohms | Ohms | mA | μA | Volts | mA | mA |
| DL4731A | 4.3 | 58.0 | 9.0 | 400 | 1.00 | 10 | 1.0 | 1085 | 217 |
| DL4732A | 4.7 | 53.0 | 8.0 | 500 | 1.00 | 10 | 1.0 | 965 | 193 |
| DL4733A | 5.1 | 49.0 | 7.0 | 550 | 1.00 | 10 | 1.0 | 890 | 178 |
| DL4734A | 5.6 | 45.0 | 5.0 | 600 | 1.00 | 10 | 2.0 | 810 | 162 |
| DL4735A | 6.2 | 41.0 | 2.0 | 700 | 1.00 | 10 | 3.0 | 730 | 146 |
| DL4736A | 6.8 | 37.0 | 3.5 | 700 | 1.00 | 10 | 4.0 | 660 | 133 |
| DL4737A | 7.5 | 34.0 | 4.0 | 700 | 0.50 | 10 | 5.0 | 605 | 121 |
| DL4738A | 8.2 | 31.0 | 4.5 | 700 | 0.50 | 10 | 6.0 | 550 | 110 |
| DL4739A | 9.1 | 28.0 | 5.0 | 700 | 0.50 | 10 | 7.0 | 500 | 100 |
| DL4740A | 10 | 25.0 | 7.0 | 700 | 0.25 | 10 | 7.6 | 454 | 91 |
| DL4741A | 11 | 23.0 | 8.0 | 700 | 0.25 | 5.0 | 8.4 | 414 | 83 |
| DL4742A | 12 | 21.0 | 9.0 | 700 | 0.25 | 5.0 | 9.1 | 380 | 76 |
| DL4743A | 13 | 19.0 | 10 | 700 | 0.25 | 5.0 | 9.9 | 344 | 69 |
| DL4744A | 15 | 17.0 | 14 | 700 | 0.25 | 5.0 | 11.4 | 304 | 61 |
| DL4745A | 16 | 15.5 | 16 | 700 | 0.25 | 5.0 | 12.2 | 285 | 57 |
| DL4746A | 18 | 14.0 | 20 | 750 | 0.25 | 5.0 | 13.7 | 250 | 50 |
| DL4747A | 20 | 12.5 | 22 | 750 | 0.25 | 5.0 | 15.2 | 225 | 45 |
| DL4748A | 22 | 11.5 | 23 | 750 | 0.25 | 5.0 | 16.7 | 205 | 41 |
| DL4749A | 24 | 10.5 | 25 | 750 | 0.25 | 5.0 | 18.2 | 190 | 37 |
| DL4750A | 27 | 9.5 | 35 | 750 | 0.25 | 5.0 | 20.6 | 170 | 34 |
| DL4751A | 30 | 8.5 | 40 | 1000 | 0.25 | 5.0 | 22.8 | 150 | 30 |
| DL4752A | 33 | 7.5 | 45 | 1000 | 0.25 | 5.0 | 25.1 | 135 | 27 |
| DL4753A | 36 | 7.0 | 50 | 1000 | 0.25 | 5.0 | 27.4 | 125 | 25 |
| DL4754A | 39 | 6.5 | 60 | 1000 | 0.25 | 5.0 | 29.7 | 115 | 23 |
| DL4755A | 43 | 6.0 | 70 | 1500 | 0.25 | 5.0 | 32.7 | 110 | 22 |
| DL4756A | 47 | 5.5 | 80 | 1500 | 0.25 | 5.0 | 35.8 | 95 | 16 |
| DL4757A | 51 | 5.0 | 95 | 1500 | 0.25 | 5.0 | 38.8 | 90 | 18 |
| DL4758A | 56 | 4.5 | 110 | 2000 | 0.25 | 5.0 | 42.6 | 80 | 16 |
| DL4759A | 63 | 4.0 | 125 | 2000 | 0.25 | 5.0 | 47.1 | 70 | 14 |
| DL4760A | 68 | 3.7 | 150 | 2000 | 0.25 | 5.0 | 51.7 | 65 | 13 |
| DL4761A | 75 | 3.3 | 175 | 2000 | 0.25 | 5.0 | 56.0 | 60 | 12 |
| DL4762A | 82 | 3.0 | 200 | 2000 | 0.25 | 5.0 | 62.2 | 55 | 11 |
| DL4763A | 91 | 2.8 | 250 | 2000 | 0.25 | 5.0 | 69.2 | 50 | 10 |
| DL4764A | 100 | 2.5 | 350 | 2000 | 0.25 | 5.0 | 76.0 | 45 | 9.0 |

NOTE:1."DL" Indicates Melf Package.

2.Suffix "A" Indicates $\pm 5\%$ Tolerance.