

GLASS SILICON ZENER DIODES

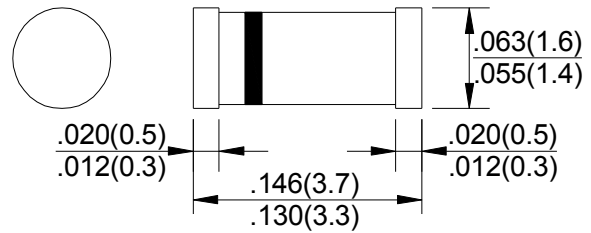
FEATURES

- Voltage Range: 3.6V to 51V
- Double slug type construction

MECHANICAL DATA

- Case: Glass case Minimelf DL-35
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Mounting position: Any
- Weight: 0.05 gram Approx

DL - 35



Dimensions in millimeters

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

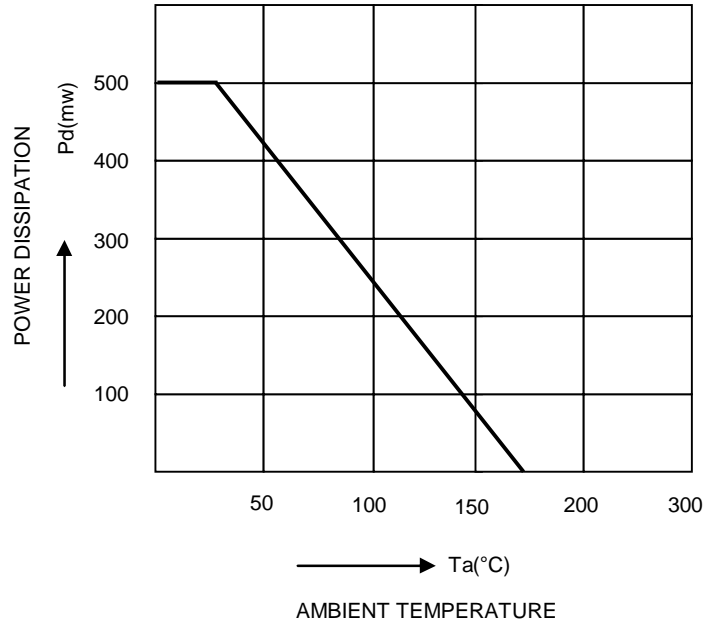
For capacitive load, derate current by 20%.

| | SYMBOL | VALUE | UNIT |
|---|--------|--------------------|-------|
| Zener Current see Table "Characterisitcs" | | | |
| Power Dissipation at Tamb=25°C | ptot | 500 ⁽¹⁾ | mW |
| Junction Temperature | Tj | 175 | °C |
| Storage Temperature Range | Tstg | -55 to +175 | °C |
| Thermal Resistance Junction to Ambient Air | RthA | - | K/mW |
| | | | Typ |
| | | | Min |
| | | | Max |
| Forward Voltage at IF=100mA | Vf | - | Volts |
| | | | Typ |
| | | | Min |
| | | | Max |

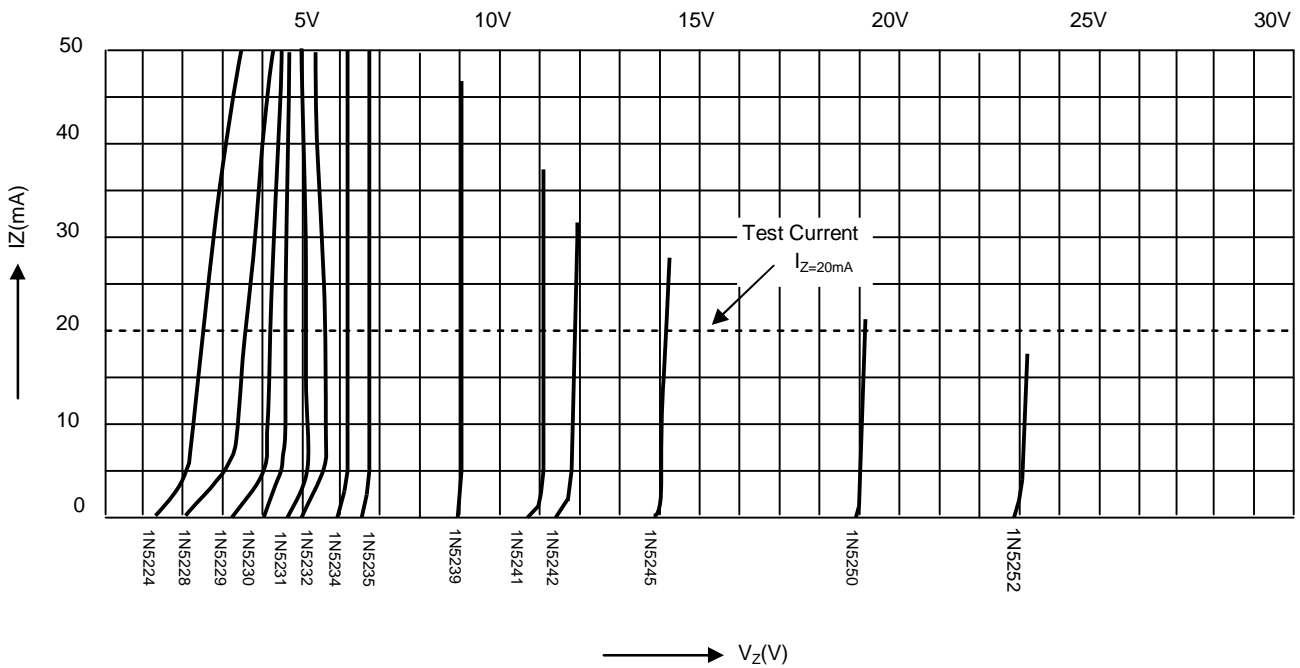
1)Valid Provided that leads are kept at ambient temperature at a distance of 8 mm from case

NOTES: Suffix "B" indicates Zener Voltage Tolerance 5%

CHANGES IN THE POWER DISSIPATION DUE TO THE AMBIENT TEMPERATURE



BREAKDOWN CHARACTERISTICS DL52 series





DL5227B thru DL5262B

| Type | Nominal Zener Voltage $V_Z@I_{ZT}$ | Zener Test Current I_{ZT} | Maximum Zener Impedance | | Typical Temperature Coefficient | Maximum Reverse Leakage Current | | Maximum Regulator Current I_{ZM} |
|---------|---|--------------------------------------|-------------------------------|----------------------------|---------------------------------------|---------------------------------------|---------|---|
| | | | $Z_{ZT}@I_{ZT}$ | $Z_{ZT}@I_{ZK}(*)=0.25mA$ | | I_R | @ V_R | |
| | Volts | mA | Ohms | Ohms | % / °C | uA | Volts | mA |
| DL5227B | 3.6 | 20 | 24 | 1700 | -0.065 | 15 | 1.0 | 126 |
| DL5228B | 3.9 | 20 | 23 | 1900 | -0.060 | 10 | 1.0 | 115 |
| DL5229B | 4.3 | 20 | 22 | 2000 | ±0.055 | 5.0 | 1.0 | 106 |
| DL5230B | 4.7 | 20 | 19 | 1900 | ±0.030 | 5.0 | 2.0 | 97 |
| DL5231B | 5.1 | 20 | 17 | 1600 | ±0.030 | 5.0 | 2.0 | 89 |
| DL5232B | 5.6 | 20 | 11 | 1600 | +0.038 | 5.0 | 3.0 | 81 |
| DL5233B | 6.0 | 20 | 7 | 1600 | +0.038 | 5.0 | 3.5 | 76 |
| DL5234B | 6.2 | 20 | 7 | 1000 | +0.045 | 5.0 | 4.0 | 73 |
| DL5235B | 6.8 | 20 | 5 | 750 | +0.050 | 3.0 | 5.0 | 67 |
| DL5236B | 7.5 | 20 | 6 | 500 | +0.058 | 3.0 | 6.0 | 61 |
| DL5237B | 8.2 | 20 | 8 | 500 | +0.060 | 3.0 | 6.5 | 55 |
| DL5238B | 8.7 | 20 | 8 | 600 | +0.065 | 3.0 | 6.5 | 52 |
| DL5239B | 9.1 | 20 | 10 | 600 | +0.068 | 3.0 | 7.0 | 50 |
| DL5240B | 10 | 20 | 17 | 600 | +0.075 | 3.0 | 8.0 | 45 |
| DL5241B | 11 | 20 | 22 | 600 | +0.076 | 2.0 | 8.4 | 41 |
| DL5242B | 12 | 20 | 30 | 600 | +0.077 | 1.0 | 9.1 | 38 |
| DL5243B | 13 | 9.5 | 13 | 600 | +0.079 | 0.5 | 9.9 | 35 |
| DL5244B | 14 | 9.0 | 15 | 600 | +0.082 | 0.1 | 10 | 32 |
| DL5245B | 15 | 8.5 | 16 | 600 | +0.082 | 0.1 | 11 | 30 |
| DL5246B | 16 | 7.8 | 17 | 600 | +0.083 | 0.1 | 12 | 28 |
| DL5247B | 17 | 7.4 | 19 | 600 | +0.084 | 0.1 | 13 | 27 |
| DL5248B | 18 | 7.0 | 21 | 600 | +0.085 | 0.1 | 14 | 25 |
| DL5249B | 19 | 6.6 | 23 | 600 | +0.085 | 0.1 | 15 | 24 |
| DL5250B | 20 | 6.2 | 25 | 600 | +0.086 | 0.1 | 16 | 23 |
| DL5251B | 22 | 5.6 | 29 | 600 | +0.087 | 0.1 | 17 | 21.2 |
| DL5252B | 24 | 5.2 | 33 | 600 | +0.088 | 0.1 | 18 | 19.1 |
| DL5253B | 25 | 5.0 | 35 | 600 | +0.089 | 0.1 | 19 | 18.2 |
| DL5254B | 27 | 4.6 | 41 | 600 | +0.090 | 0.1 | 21 | 16.8 |
| DL5255B | 28 | 4.5 | 44 | 600 | +0.091 | 0.1 | 21 | 16.2 |
| DL5256B | 30 | 4.2 | 49 | 600 | +0.091 | 0.1 | 23 | 15.1 |
| DL5257B | 33 | 3.8 | 58 | 700 | +0.092 | 0.1 | 25 | 13.8 |
| DL5258B | 36 | 3.4 | 70 | 700 | +0.093 | 0.1 | 27 | 12.6 |
| DL5259B | 39 | 3.2 | 80 | 800 | +0.094 | 0.1 | 30 | 11.5 |
| DL5260B | 43 | 3 | 93 | 900 | +0.095 | 0.1 | 33 | 10.6 |
| DL5261B | 47 | 2.7 | 150 | 1000 | +0.095 | 0.1 | 36 | 9.7 |
| DL5262B | 51 | 2.5 | 125 | 1100 | +0.096 | 0.1 | 39 | 8.9 |