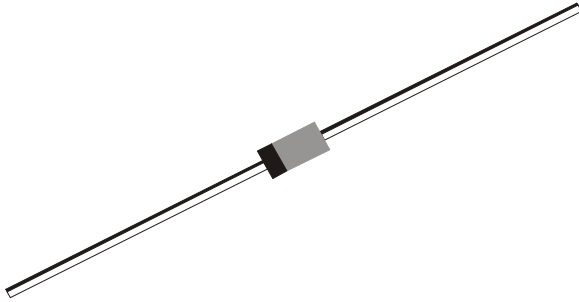


SILICON GLASS PASSIVATED 1.0 WATT ZENER DIODES

**1N4728A to 1N4762A
3.3V to 82V**

**DO-41
Glass Axial Package**



FEATURES

These Zeners are best suited for General Purpose Industrial, Entertainment, Military & Space Applications. The Glass Passivated Chips are Hermetically Sealed with Double Studs, Providing Excellent Stability and Reliability.

ABSOLUTE MAXIMUM RATINGS

| DESCRIPTION | SYMBOL | VALUE | UNIT |
|--|-----------|--------------|----------------------|
| Power Dissipation @ $T_a=50^\circ\text{C}$ | P_D | 1 | W |
| Derate above 50°C | | 6.67 | mW/ $^\circ\text{C}$ |
| Operating and Storage Temperature | T_{stg} | - 65 to +200 | $^\circ\text{C}$ |

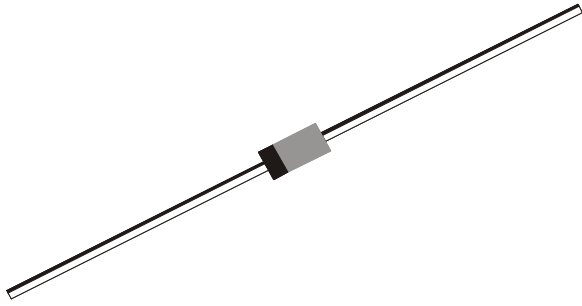
ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$ $V_F < 1.2\text{V}$ @ 200mA)

| Device | V_{ZT}^{**} @ I_{ZT} | r_{zt}^{**} | I_{ZT} | $r_{zK} @$ | I_{ZK} | Temp. Coeff of Zener Voltage typ. | I_R | V_R | I_{ZM} | I_{ZSM}^* |
|---------|--------------------------|---------------|----------|--------------|----------|-----------------------------------|-------------------|-------|----------|-------------|
| | Nominal | MAX | MAX | MAX | MAX | %/ $^\circ\text{C}$ | Max | Max | Max | Max |
| | (V) | (Ω) | (mA) | (Ω) | (mA) | | (μA) | (V) | (mA) | (mA) |
| 1N4728A | 3.3 | 10 | 76.0 | 400 | 1.0 | -0.06 | 100 | 1.0 | 276 | 1380 |
| 1N4729A | 3.6 | 10 | 69.0 | 400 | 1.0 | -0.06 | 100 | 1.0 | 252 | 1260 |
| 1N4730A | 3.9 | 9.0 | 64.0 | 400 | 1.0 | -0.05 | 50 | 1.0 | 234 | 1190 |
| 1N4731A | 4.3 | 9.0 | 58.0 | 400 | 1.0 | -0.03 | 10 | 1.0 | 217 | 1070 |
| 1N4732A | 4.7 | 8.0 | 53.0 | 500 | 1.0 | -0.01 | 10 | 1.0 | 193 | 970 |
| 1N4733A | 5.1 | 7.0 | 49.0 | 550 | 1.0 | 0.01 | 10 | 1.0 | 178 | 890 |
| 1N4734A | 5.6 | 5.0 | 45.0 | 600 | 1.0 | 0.03 | 10 | 2.0 | 162 | 810 |
| 1N4735A | 6.2 | 2.0 | 41.0 | 700 | 1.0 | 0.04 | 10 | 3.0 | 146 | 730 |
| 1N4736A | 6.8 | 3.5 | 37.0 | 700 | 1.0 | 0.05 | 10 | 4.0 | 133 | 660 |
| 1N4737A | 7.5 | 4.0 | 34.0 | 700 | 0.5 | 0.05 | 10 | 5.0 | 121 | 605 |
| 1N4738A | 8.2 | 4.5 | 31.0 | 700 | 0.5 | 0.06 | 10 | 6.0 | 110 | 550 |
| 1N4739A | 9.1 | 5.0 | 28.0 | 700 | 0.5 | 0.06 | 10 | 7.0 | 100 | 500 |
| 1N4740A | 10 | 7.0 | 25.0 | 700 | 0.25 | 0.07 | 10 | 7.6 | 91 | 454 |
| 1N4741A | 11 | 8.0 | 23.0 | 700 | 0.25 | 0.07 | 5 | 8.4 | 83 | 414 |
| 1N4742A | 12 | 9.0 | 21.0 | 700 | 0.25 | 0.07 | 5 | 9.1 | 76 | 380 |
| 1N4743A | 13 | 10 | 19.0 | 700 | 0.25 | 0.07 | 5 | 9.9 | 69 | 344 |
| 1N4744A | 15 | 14 | 17.0 | 700 | 0.25 | 0.08 | 5 | 11.4 | 61 | 304 |
| 1N4745A | 16 | 16 | 15.5 | 700 | 0.25 | 0.08 | 5 | 12.2 | 57 | 285 |
| 1N4746A | 18 | 20 | 14.0 | 750 | 0.25 | 0.08 | 5 | 13.7 | 50 | 250 |
| 1N4747A | 20 | 22 | 12.5 | 750 | 0.25 | 0.08 | 5 | 15.2 | 45 | 225 |
| 1N4748A | 22 | 23 | 11.5 | 750 | 0.25 | 0.08 | 5 | 16.7 | 41 | 205 |
| 1N4749A | 24 | 25 | 10.5 | 750 | 0.25 | 0.08 | 5 | 18.2 | 38 | 190 |
| 1N4750A | 27 | 35 | 9.5 | 750 | 0.25 | 0.09 | 5 | 20.6 | 34 | 170 |
| 1N4751A | 30 | 40 | 8.5 | 1000 | 0.25 | 0.09 | 5 | 22.8 | 30 | 150 |
| 1N4752A | 33 | 45 | 7.5 | 1000 | 0.25 | 0.09 | 5 | 25.1 | 27 | 135 |

SILICON GLASS PASSIVATED 1.0 WATT ZENER DIODES

1N4728A to 1N4762A
3.3V to 82V

DO-41
Glass Axial Package



ELECTRICAL CHARACTERISTICS (T_a=25°C V_F <1.2V @ 200mA)

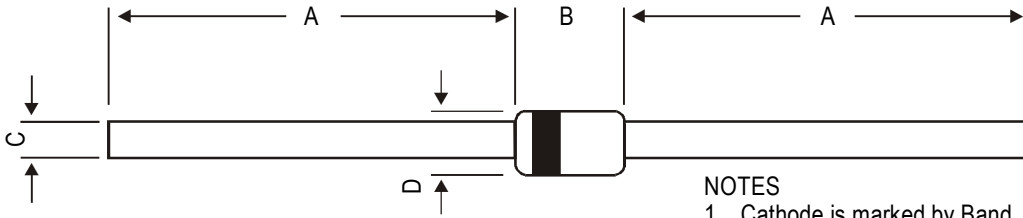
| Device | V _{ZT} ** @ I _{ZT} | r _{zt} ** | I _{ZT} | r _{ZK} @ | I _{ZK} | Temp. Coeff of Zener Voltage typ. %/ °C | I _R | V _R | I _{ZM} | I _{ZSM} * |
|---------|--------------------------------------|--------------------|-----------------|-------------------|-----------------|---|----------------|----------------|-----------------|--------------------|
| | Nominal (V) | MAX (Ω) | (mA) | MAX (Ω) | (mA) | | Max (μA) | (V) | Max (mA) | Max (mA) |
| 1N4753A | 36 | 50 | 7.0 | 1000 | 0.25 | 0.09 | 5 | 27.4 | 25 | 125 |
| 1N4754A | 39 | 60 | 6.5 | 1000 | 0.25 | 0.09 | 5 | 29.7 | 23 | 115 |
| 1N4755A | 43 | 70 | 6.0 | 1500 | 0.25 | 0.09 | 5 | 32.7 | 22 | 110 |
| 1N4756A | 47 | 80 | 5.5 | 1500 | 0.25 | 0.09 | 5 | 35.8 | 19 | 95 |
| 1N4757A | 51 | 95 | 5.0 | 1500 | 0.25 | 0.09 | 5 | 38.8 | 18 | 90 |
| 1N4758A | 56 | 110 | 4.5 | 2000 | 0.25 | 0.09 | 5 | 42.6 | 16 | 80 |
| 1N4759A | 62 | 125 | 4.0 | 2000 | 0.25 | 0.09 | 5 | 47.1 | 14 | 70 |
| 1N4760A | 68 | 150 | 3.7 | 2000 | 0.25 | 0.09 | 5 | 51.7 | 13 | 65 |
| 1N4761A | 75 | 175 | 3.3 | 2000 | 0.25 | 0.09 | 5 | 56.0 | 12 | 60 |
| 1N4762A | 82 | 200 | 3.0 | 3000 | 0.25 | 0.09 | 5 | 62.2 | 11 | 55 |

Tolerance on Nominal V_Z (1N4728A to 1N4762A) A Suffix +/- 5% , No Suffix +/-10%

** Pulse Condition : 20ms t_p ≤ 50ms, Duty Cycle ≤ 2%

* Rectangle wave form (t_p = 10ms)

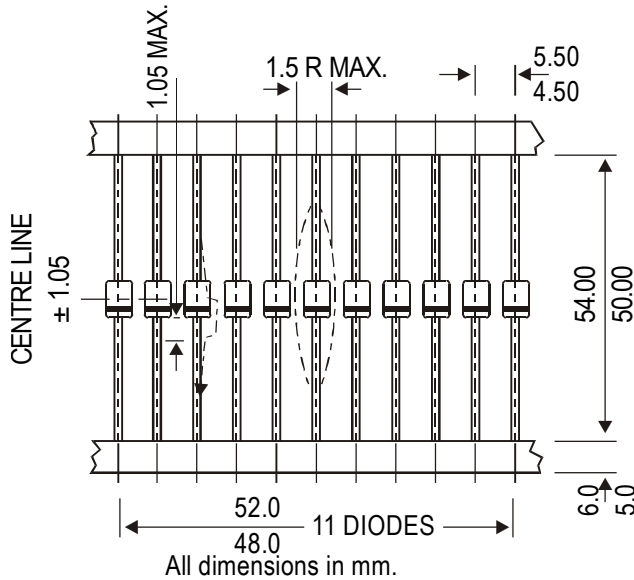
DO-41 Glass Axial Package



| DIM | MIN | MAX |
|-----|-------|------|
| A | 27.90 | — |
| B | 4.06 | 5.51 |
| C | 0.71 | 0.87 |
| D | 2.03 | 2.72 |

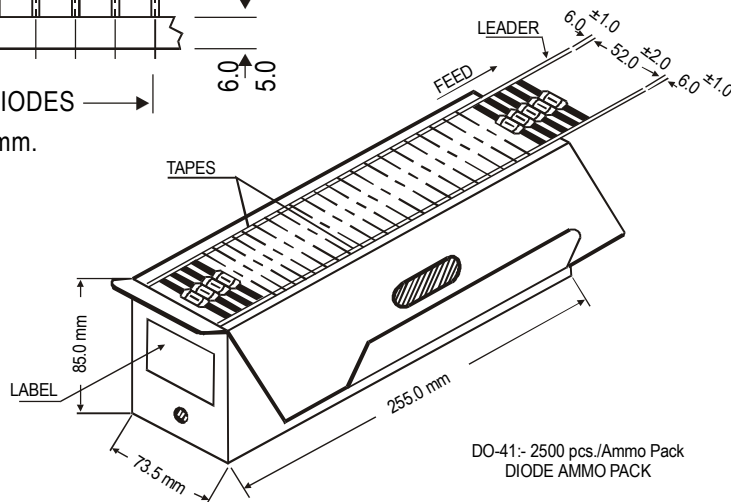
NOTES
1. Cathode is marked by Band.
2. All dimensions are in mm.

DO-41, 52mm Taping Specification



52 mm Taping Specification

1. T & A indicates Axil Tape & Ammo packing (52 mm Tape Spacing).
2. 300 mm (min) leader tape on every spool.
3. No. of empty places allowed 0.25% without consecutive empty places.
4. Ends of leads shall preferably not protrude beyond the tapes.
5. Components shall be held sufficiently in the tape or tapes so that they can not come free in normal handling.



On request also available in 26 mm Tape and Ammo Pack

Packing Detail

| PACKAGE | STANDARD PACK | | INNER CARTON BOX | | OUTER CARTON BOX | | |
|-----------|---------------|------------------|-------------------|------|---------------------|-------|--------|
| | Details | Net Weight/Qty | Size | Qty | Size | Qty | Gr Wt |
| DO-41 T&A | 2.5K/ammo box | 1.04 kg/2.5K pcs | 10" x 3.5" x 3.5" | 2.5K | 12.7" x 12.7" x 20" | 62.5K | 30 kgs |

Disclaimer

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