

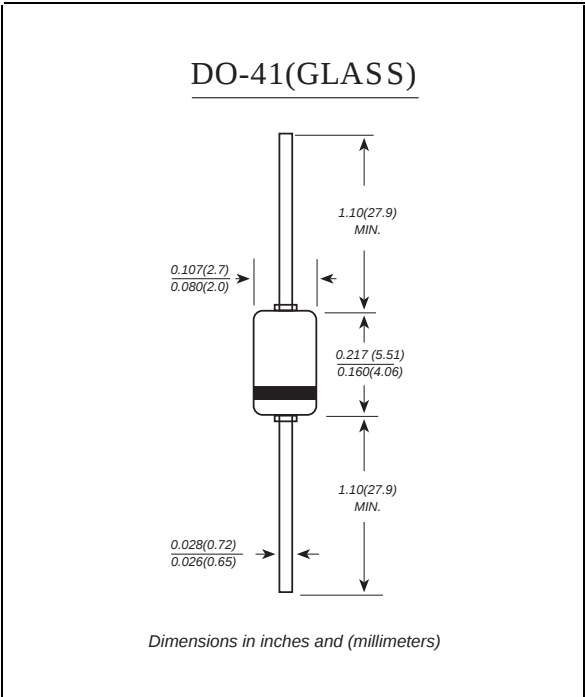
1N4728A~1N4764A  
1000mW Zener Diodes

Features

- ◆ Low zener impedance
- ◆ Low regulation factor
- ◆ Glass passivated junction
- ◆ High temperature soldering guaranteed:  
260°C/10S/9.5mm lead length at 5 lbs tension

Mechanical Data

Case: JEDEC DO-41(GLASS) molded glass body  
Terminals : Plated axial leads, solderable per MIL-STD-750, Method 2026  
Polarity: Color band denotes cathode end  
Mounting Position : Any  
Weight : 0.012 ounce,0.35 grams



Maximum Ratings And Electrical Characteristics

Ratings at 25 C ambient temperature unless otherwise specified.

|                                             | SYMBOLS          | VALUE        | UNITS |
|---------------------------------------------|------------------|--------------|-------|
| Zener Current see Table Characteristics     |                  |              |       |
| Power Dissipation at Tamb=25°C(Note 1)      | P <sub>tot</sub> | 1000         | mW    |
| Junction Temperature                        | T <sub>j</sub>   | 200          | °C    |
| Storage Temperature Range                   | T <sub>STG</sub> | -65 to + 200 | °C    |
| Thermal resistance junction ambient(Note 1) | R <sub>θJA</sub> | 170          | °C/W  |
| Forward voltage at I <sub>F</sub> =200mA    | V <sub>F</sub>   | 1.2          | V     |

Note : Valid provided that leads at a distance of 10mm from case are kept at ambient temperature

## Electrical Characterisitics (at T<sub>A</sub> =25°C unless otherwise noted)

| TYPE*   | Zener Voltage      |                     | Reverse Current     |                    | Dynamic Resistance |                     |
|---------|--------------------|---------------------|---------------------|--------------------|--------------------|---------------------|
|         | V <sub>z</sub> (V) | Test Condition      | I <sub>r</sub> (uA) | Test Condition     | r <sub>d</sub> (Ω) | Test Condition      |
|         | Nom.               | I <sub>z</sub> (mA) | Max.                | V <sub>r</sub> (V) | Max.               | I <sub>z</sub> (mA) |
| 1N4728A | 3.3                | 76.0                | 100                 | 1.0                | 10                 | 76.0                |
| 1N4729A | 3.6                | 69.0                | 100                 | 1.0                | 10                 | 69.0                |
| 1N4730A | 3.9                | 64.0                | 50                  | 1.0                | 9                  | 64.0                |
| 1N4731A | 4.3                | 58.0                | 10                  | 1.0                | 9                  | 58.0                |
| 1N4732A | 4.7                | 53.0                | 10                  | 1.0                | 8                  | 53.0                |
| 1N4733A | 5.1                | 49.0                | 10                  | 1.0                | 7                  | 49.0                |
| 1N4734A | 5.6                | 45.0                | 10                  | 2.0                | 5                  | 45.0                |
| 1N4735A | 6.2                | 41.0                | 10                  | 3.0                | 2                  | 41.0                |
| 1N4736A | 6.8                | 37.0                | 10                  | 4.0                | 3.5                | 37.0                |
| 1N4737A | 7.5                | 34.0                | 10                  | 5.0                | 4                  | 34.0                |
| 1N4738A | 8.2                | 31.0                | 10                  | 6.0                | 4.5                | 31.0                |
| 1N4739A | 9.1                | 28.0                | 10                  | 7.0                | 5                  | 28.0                |
| 1N4740A | 10                 | 25.0                | 10                  | 7.6                | 7                  | 25.0                |
| 1N4741A | 11                 | 23.0                | 5                   | 8.4                | 8                  | 23.0                |
| 1N4742A | 12                 | 21.0                | 5                   | 9.1                | 9                  | 21.0                |
| 1N4743A | 13                 | 19.0                | 5                   | 9.9                | 10                 | 19.0                |
| 1N4744A | 15                 | 17.0                | 5                   | 11.4               | 14                 | 17.0                |
| 1N4745A | 16                 | 15.5                | 5                   | 12.2               | 16                 | 15.5                |
| 1N4746A | 18                 | 14.0                | 5                   | 13.7               | 20                 | 14.0                |
| 1N4747A | 20                 | 12.5                | 5                   | 15.2               | 22                 | 12.5                |
| 1N4748A | 22                 | 11.5                | 5                   | 16.7               | 23                 | 11.5                |
| 1N4749A | 24                 | 10.5                | 5                   | 18.2               | 25                 | 10.5                |
| 1N4750A | 27                 | 9.5                 | 5                   | 20.6               | 35                 | 9.5                 |
| 1N4751A | 30                 | 8.5                 | 5                   | 22.8               | 40                 | 8.5                 |
| 1N4752A | 33                 | 7.5                 | 5                   | 25.1               | 45                 | 7.5                 |
| 1N4753A | 36                 | 7.0                 | 5                   | 27.4               | 50                 | 7.0                 |
| 1N4754A | 39                 | 6.5                 | 5                   | 29.7               | 60                 | 6.5                 |
| 1N4755A | 43                 | 6.0                 | 5                   | 32.7               | 70                 | 6.0                 |
| 1N4756A | 47                 | 5.5                 | 5                   | 35.8               | 80                 | 5.5                 |
| 1N4757A | 51                 | 5.0                 | 5                   | 38.8               | 95                 | 5.0                 |
| 1N4758A | 56                 | 4.5                 | 5                   | 42.6               | 110                | 4.5                 |
| 1N4759A | 62                 | 4.0                 | 5                   | 47.1               | 125                | 4.0                 |
| 1N4760A | 68                 | 3.7                 | 5                   | 51.7               | 150                | 3.7                 |
| 1N4761A | 75                 | 3.3                 | 5                   | 56.0               | 175                | 3.3                 |
| 1N4762A | 82                 | 3.0                 | 5                   | 62.2               | 200                | 3.0                 |
| 1N4763A | 91                 | 2.8                 | 5                   | 69.2               | 250                | 2.8                 |
| 1N4764A | 100                | 2.5                 | 5                   | 76.0               | 350                | 2.5                 |

### Notes:

- 1) Valid provided that leads at a distance of 8 mm from case are kept at ambient temperature.
  - 2) Measured under thermal equilibrium and DC test conditions.
  - 3) The rating listed in the electrical characteristics table is maximum peak, non-repetitive, reverse surge current of 1/2 square wave or equiv-alent sine wave pulse of 1/120 second duration superimposed on the test current, I<sub>ZT</sub>, per JEDEC registration; however, actual device capability is as described in Fiure 5 of the General Data-DO-41 Glass.
  - 4) Tested with pulses t<sub>p</sub> = 20 ms.
  - 5) V<sub>F</sub>(Max)=1.20V@ I<sub>F</sub>=200mA
- \*Measure under thermal equilibrium and DC current test conditions(T<sub>A</sub>=25°C)  
Tolerance on nominal V<sub>z</sub> value: ±5%.  
Tight tolerances on preferred voltages:     1N47...C: ±2%;  
                                                          1N47...D: ±1%.