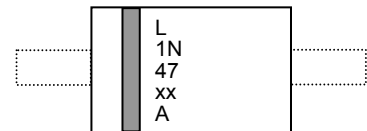


1 Watt DO-41 Hermetically Sealed Glass Zener Voltage Regulators


 AXIAL LEAD
DO41

Maximum Ratings

| Rating | Symbol | Value | Units |
|--|-----------------------------------|-------------|-------|
| Maximum Steady State Power Dissipation @TL≤50°C, Lead Length = 3/8" | P _D | 1 | W |
| Derate Above 50°C | | 6.67 | mW/°C |
| Operating and Storage Temperature Range | T _J , T _{stg} | -65 to +200 | °C |



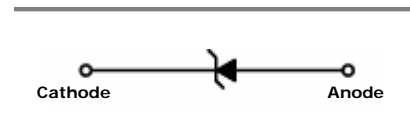
L = Logo
1N47xxA = Device Code

Specification Features:

- Zener Voltage Range = 3.3V to 100V
- ESD Rating of Class 3 (>6 KV) per Human Body Model
- DO-41 Package (DO-204AL)
- Double Slug Type Construction
- Metallurgical Bonded Construction
- Oxide Passivated Die
- RoHS Compliant
- Solder Hot Dip Tin (Sn) Lead Finish

Specification Features:

- Case** : Double slug type, hermetically sealed glass
- Finish** : All external surfaces are corrosion resistant and leads are readily solderable
- Polarity** : Cathode indicated by polarity band
- Mounting:** Any



ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise noted.)

| Device (Note 1.) | Device Marking | Zener Voltage (Note 2 & 3.) | | | | Zener Impedance (Note 4.) | | | Leakage Current | |
|---------------------|-------------------|-----------------------------|-----|-------|------------------|----------------------------------|----------------------------------|------|---------------------------------|---------|
| | | V _Z (Volts) | | | @I _{ZT} | Z _{ZT} @I _{ZT} | Z _{ZK} @I _{ZK} | | I _R @ V _R | |
| | | Min | Nom | Max | (mA) | (Ω) | (Ω) | (mA) | (uA Max) | (Volts) |
| 1N4728A | 1N4728A | 3.135 | 3.3 | 3.465 | 76 | 10 | 400 | 1 | 100 | 1 |
| 1N4729A | 1N4729A | 3.420 | 3.6 | 3.780 | 69 | 10 | 400 | 1 | 100 | 1 |
| 1N4730A | 1N4730A | 3.705 | 3.9 | 4.095 | 64 | 9 | 400 | 1 | 50 | 1 |
| 1N4731A | 1N4731A | 4.085 | 4.3 | 4.515 | 58 | 9 | 400 | 1 | 10 | 1 |
| 1N4732A | 1N4732A | 4.465 | 4.7 | 4.935 | 53 | 8 | 500 | 1 | 10 | 1 |
| 1N4733A | 1N4733A | 4.845 | 5.1 | 5.355 | 49 | 7 | 550 | 1 | 10 | 1 |
| 1N4734A | 1N4734A | 5.320 | 5.6 | 5.880 | 45 | 5 | 600 | 1 | 10 | 2 |
| 1N4735A | 1N4735A | 5.890 | 6.2 | 6.510 | 41 | 2 | 700 | 1 | 10 | 3 |
| 1N4736A | 1N4736A | 6.460 | 6.8 | 7.140 | 37 | 3.5 | 700 | 1 | 10 | 4 |
| 1N4737A | 1N4737A | 7.125 | 7.5 | 7.875 | 34 | 4 | 700 | 0.5 | 10 | 5 |
| 1N4738A | 1N4738A | 7.790 | 8.2 | 8.610 | 31 | 4.5 | 700 | 0.5 | 10 | 6 |
| 1N4739A | 1N4739A | 8.645 | 9.1 | 9.555 | 28 | 5 | 700 | 0.5 | 10 | 7 |
| 1N4740A | 1N4740A | 9.500 | 10 | 10.50 | 25 | 7 | 700 | 0.25 | 10 | 7.6 |
| 1N4741A | 1N4741A | 10.45 | 11 | 11.55 | 23 | 8 | 700 | 0.25 | 5 | 8.4 |
| 1N4742A | 1N4742A | 11.40 | 12 | 12.60 | 21 | 9 | 700 | 0.25 | 5 | 9.1 |
| 1N4743A | 1N4743A | 12.35 | 13 | 13.65 | 19 | 10 | 700 | 0.25 | 5 | 9.9 |
| 1N4744A | 1N4744A | 14.25 | 15 | 15.75 | 17 | 14 | 700 | 0.25 | 5 | 11.4 |
| 1N4745A | 1N4745A | 15.20 | 16 | 16.80 | 15.5 | 16 | 700 | 0.25 | 5 | 12.2 |
| 1N4746A | 1N4746A | 17.10 | 18 | 18.90 | 14 | 20 | 750 | 0.25 | 5 | 13.7 |
| 1N4747A | 1N4747A | 19.00 | 20 | 21.00 | 12.5 | 22 | 750 | 0.25 | 5 | 15.2 |
| 1N4748A | 1N4748A | 20.90 | 22 | 23.10 | 11.5 | 23 | 750 | 0.25 | 5 | 16.7 |
| 1N4749A | 1N4749A | 22.80 | 24 | 25.20 | 10.5 | 25 | 750 | 0.25 | 5 | 18.2 |
| 1N4750A | 1N4750A | 25.65 | 27 | 28.35 | 9.5 | 35 | 750 | 0.25 | 5 | 20.6 |
| 1N4751A | 1N4751A | 28.50 | 30 | 31.50 | 8.5 | 40 | 1000 | 0.25 | 5 | 22.8 |
| 1N4752A | 1N4752A | 31.35 | 33 | 34.65 | 7.5 | 45 | 1000 | 0.25 | 5 | 25.1 |
| 1N4753A | 1N4753A | 34.20 | 36 | 37.80 | 7 | 50 | 1000 | 0.25 | 5 | 27.4 |
| 1N4754A | 1N4754A | 37.05 | 39 | 40.95 | 6.5 | 60 | 1000 | 0.25 | 5 | 29.7 |
| 1N4755A | 1N4755A | 40.85 | 43 | 45.15 | 6 | 70 | 1500 | 0.25 | 5 | 32.7 |
| 1N4756A | 1N4756A | 44.65 | 47 | 49.35 | 5.5 | 80 | 1500 | 0.25 | 5 | 35.8 |
| 1N4757A | 1N4757A | 48.45 | 51 | 53.55 | 5 | 95 | 1500 | 0.25 | 5 | 38.8 |
| 1N4758A | 1N4758A | 53.20 | 56 | 58.80 | 4.5 | 110 | 2000 | 0.25 | 5 | 42.6 |
| 1N4759A | 1N4759A | 58.90 | 62 | 65.10 | 4 | 125 | 2000 | 0.25 | 5 | 47.1 |
| 1N4760A | 1N4760A | 64.60 | 68 | 71.40 | 3.7 | 150 | 2000 | 0.25 | 5 | 51.7 |
| 1N4761A | 1N4761A | 71.25 | 75 | 78.75 | 3.3 | 175 | 2000 | 0.25 | 5 | 56.0 |
| 1N4762A | 1N4762A | 77.90 | 82 | 86.10 | 3 | 200 | 3000 | 0.25 | 5 | 62.2 |
| 1N4763A | 1N4763A | 86.45 | 91 | 95.55 | 2.8 | 250 | 3000 | 0.25 | 5 | 69.2 |
| 1N4764A | 1N4764A | 95.00 | 100 | 105.0 | 2.5 | 350 | 3000 | 0.25 | 5 | 76.0 |

V_F = 1.2V Max @I_F = 200mA for 60V below types, and V_F = 1.4V Max @I_F = 200mA for 60V above types

1. TOLERANCE AND TYPE NUMBER DESIGNATION (V_Z)

The type numbers listed have a standard tolerance on the nominal zener voltage of $\pm 5\%$.

2. SPECIALS AVAILABLE INCLUDE

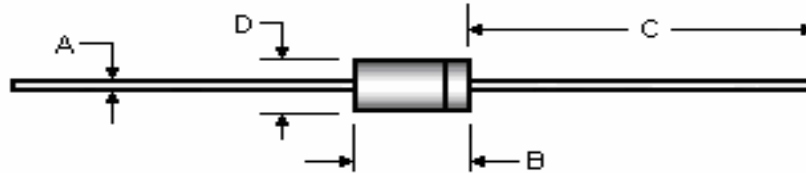
Nominal zener voltages between the voltages shown and tighter voltage, for detailed information on price, availability and delivery, contact you nearest Tak Cheong representative.

3. ZENER VOLTAGE (V_z) MEASUREMENT

The zener voltage (V_z) is tested under pulse condition. The measured V_z is guaranteed to be within specification with device junction in thermal equilibrium.

4. ZENER IMPEDANCE (Z_z) DERIVATION

The zener impedance is derived from the 60 cycle AC voltage, which results when an AC current having an RMS value equal to 10% of the DC zener current (I_{ZT} or I_{ZK}) is superimposed on I_{ZT} or I_{ZK} .

Package Outline
Case Outline



| DIM | DO-41 | | | |
|----------|-------------|------|--------|-------|
| | Millimeters | | Inches | |
| | Min | Max | Min | Max |
| A | 0.72 | 0.86 | 0.028 | 0.034 |
| B | 4.07 | 5.20 | 0.160 | 0.205 |
| C | 25.40 | --- | 1.000 | --- |
| D | 2.04 | 2.71 | 0.080 | 0.107 |

Note: all dimensions are within JEDEC standard.

This datasheet presents technical data of Tak Cheong's Zener Diodes. Complete specifications for the individual devices are provided in the form of datasheets. A comprehensive Selector Guide is included to simplify the task of choosing the best set of components required for a specific application. For additional information, please visit our website <http://www.takcheong.com>.

Although information in this datasheet has been carefully checked, no responsibility for the inaccuracies can be assumed by Tak Cheong. Please consult your nearest Tak Cheong's sales office for further assistance.

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