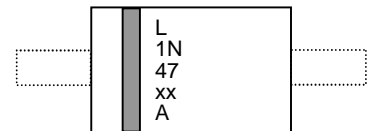


1 Watt DO-41 Hermetically Sealed Glass Zener Voltage Regulators


 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 |



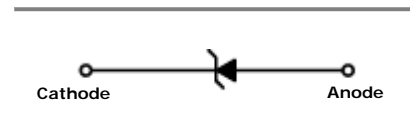
L = Logo
 1N47xxA = Device Code

Specification Features:

- § Zener Voltage Range = 3.3V to 75V
- § ESD Rating of Class 3 (>6 KV) per Human Body Model
- § DO-41 Package (DO-204AL)
- § Double Slug Type Construction
- § Former Metallurgical Bonded Construction
- § Oxide Passivated Die
- § RoHS Compliant and Halogen Free
- § 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) | (μA 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 |

$V_F = 1.2\text{V}$ Max @ $I_F = 200\text{mA}$ for 30V below types, $V_F = 2.0\text{V}$ Max @ $I_F = 200\text{mA}$ for 30~56V types, and $V_F = 3.0\text{V}$ Max @ $I_F = 200\text{mA}$ 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

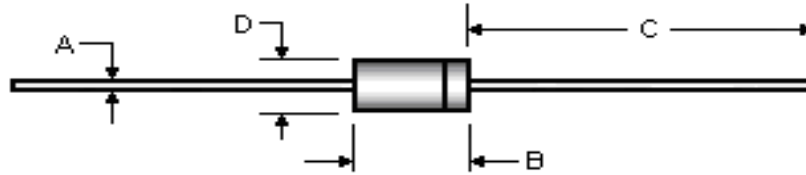
The zener voltage (V_Z) is tested under pulse condition. The measured V_Z is guaranteed to be within specification with device junction in thermal equilibrium.

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 | 0.68 | 0.81 | 0.027 | 0.032 |
| B | 3.70 | 4.25 | 0.146 | 0.167 |
| C | 25.40 | --- | 1.000 | --- |
| D | 2.10 | 2.60 | 0.083 | 0.102 |

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[JANS1N4974US](#) [1N4692](#) [1N4700](#) [1N4702](#) [1N4704](#) [1N4711](#) [1N4714](#) [1N4737A](#) [1N4745ARL](#) [1N4752A](#) [1N4752ARL](#) [1N4760ARL](#)
[1N5221B](#) [1N5236B](#) [1N5241BTR](#) [1N5242BTR](#) [1N5350B](#) [1N5352B](#) [1N961BRR1](#) [1N964BRL](#) [RKZ5.1BKU#P6](#) [3SMAJ5946B-TP](#)
[3SMAJ5950B-TP](#) [3SMBJ5925B-TP](#) [441774C](#) [BZX84C3V9](#)