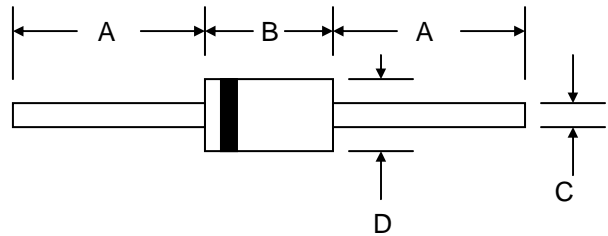


Features

- Glass Passivated Die Construction
- 1.0 Watt Power Dissipation
- 3.3 – 100V Nominal Zener Voltage
- 5% Standard Vz Tolerance
- Low Inductance
- Typical I_R Less Than 5.0 μ A Above 11V
- Plastic Case Material Has UL Flammability Classification Rating 94V-O



Mechanical Data

- Case: DO-41, Molded Plastic
- Terminals: Axial Leads, Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Marking: Type Number
- Weight: 0.35 grams (approx.)
- **Lead Free: For RoHS / Lead Free Version, Add "-LF" Suffix to Part Number, See Page 4**

| DO-41 | | |
|----------------------|-------|-------|
| Dim | Min | Max |
| A | 25.40 | — |
| B | 4.06 | 5.21 |
| C | 0.71 | 0.864 |
| D | 2.00 | 2.72 |
| All Dimensions in mm | | |

Maximum Ratings @ $T_A=25^\circ\text{C}$ unless otherwise specified

| Characteristic | Symbol | Value | Unit |
|--|-----------------|-------------|---------------------------|
| DC Power Dissipation at $T_L = 50^\circ\text{C}$ (Note 1) Derate above 50°C | P_d | 1.0 6.67 | W mW/ $^\circ\text{C}$ |
| Forward Voltage @ $I_F = 200\text{mA}$ | V_F | 1.2 | V |
| Thermal Resistance Junction to Ambient (Note 2) | $R_{\theta JA}$ | 170 | K/W |
| Operating and Storage Temperature Range | T_j, T_{STG} | -65 to +150 | $^\circ\text{C}$ |

Note: 1. Measured at lead length 3/8" (9.5mm) from body.

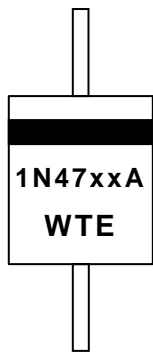
2. Valid provided that leads are kept at ambient temperature at a distance of 10mm from the case.

Electrical Characteristics @ $T_A=25^{\circ}\text{C}$ unless otherwise specified

| Type Number (Note 1) | Nominal Zener Voltage (Note 2) | Test Current | Maximum Zener Impedance (Note 3) | | | Leakage Current | | Max DC Zener Current | Max Surge Current 8.3ms |
|-------------------------|--------------------------------|--------------|----------------------------------|-------------------|----------|-------------------|---------|----------------------|-------------------------|
| | $V_z @ I_{zT}$ | I_{zT} | $Z_{zT} @ I_{zT}$ | $Z_{zK} @ I_{zK}$ | I_{zK} | I_R | @ V_R | I_{zM} | I_{zS} |
| | (V) | (mA) | (Ω) | (Ω) | (mA) | (μA) | (V) | (mA) | (mA) |
| 1N4728A | 3.3 | 76 | 10 | 400 | 1.0 | 100 | 1.0 | 276 | 1380 |
| 1N4729A | 3.6 | 69 | 10 | 400 | 1.0 | 100 | 1.0 | 252 | 1260 |
| 1N4730A | 3.9 | 64 | 9.0 | 400 | 1.0 | 50 | 1.0 | 234 | 1190 |
| 1N4731A | 4.3 | 58 | 9.0 | 400 | 1.0 | 10 | 1.0 | 217 | 1070 |
| 1N4732A | 4.7 | 53 | 8.0 | 500 | 1.0 | 10 | 1.0 | 193 | 970 |
| 1N4733A | 5.1 | 49 | 7.0 | 550 | 1.0 | 10 | 1.0 | 178 | 890 |
| 1N4734A | 5.6 | 45 | 5.0 | 600 | 1.0 | 10 | 2.0 | 162 | 810 |
| 1N4735A | 6.2 | 41 | 2.0 | 700 | 1.0 | 10 | 3.0 | 146 | 730 |
| 1N4736A | 6.8 | 37 | 3.5 | 700 | 1.0 | 10 | 4.0 | 133 | 660 |
| 1N4737A | 7.5 | 34 | 4.0 | 700 | 0.5 | 10 | 5.0 | 121 | 605 |
| 1N4738A | 8.2 | 31 | 4.5 | 700 | 0.5 | 10 | 6.0 | 110 | 550 |
| 1N4739A | 9.1 | 28 | 5.0 | 700 | 0.5 | 10 | 7.0 | 100 | 500 |
| 1N4740A | 10 | 25 | 7.0 | 700 | 0.25 | 10 | 7.6 | 91 | 454 |
| 1N4741A | 11 | 23 | 8.0 | 700 | 0.25 | 5.0 | 8.4 | 83 | 414 |
| 1N4742A | 12 | 21 | 9.0 | 700 | 0.25 | 5.0 | 9.1 | 76 | 380 |
| 1N4743A | 13 | 19 | 10 | 700 | 0.25 | 5.0 | 9.9 | 69 | 344 |
| 1N4744A | 15 | 17 | 14 | 700 | 0.25 | 5.0 | 11.4 | 61 | 304 |
| 1N4745A | 16 | 15.5 | 16 | 700 | 0.25 | 5.0 | 12.2 | 57 | 285 |
| 1N4746A | 18 | 14 | 20 | 750 | 0.25 | 5.0 | 13.7 | 50 | 250 |
| 1N4747A | 20 | 12.5 | 22 | 750 | 0.25 | 5.0 | 15.2 | 45 | 225 |
| 1N4748A | 22 | 11.5 | 23 | 750 | 0.25 | 5.0 | 16.7 | 41 | 205 |
| 1N4749A | 24 | 10.5 | 25 | 750 | 0.25 | 5.0 | 18.2 | 38 | 190 |
| 1N4750A | 27 | 9.5 | 35 | 750 | 0.25 | 5.0 | 20.6 | 34 | 170 |
| 1N4751A | 30 | 8.5 | 40 | 1000 | 0.25 | 5.0 | 22.8 | 30 | 150 |
| 1N4752A | 33 | 7.5 | 45 | 1000 | 0.25 | 5.0 | 25.1 | 27 | 135 |
| 1N4753A | 36 | 7.0 | 50 | 1000 | 0.25 | 5.0 | 27.4 | 25 | 125 |
| 1N4754A | 39 | 6.5 | 60 | 1000 | 0.25 | 5.0 | 29.7 | 23 | 115 |
| 1N4755A | 43 | 6.0 | 70 | 1500 | 0.25 | 5.0 | 32.7 | 22 | 110 |
| 1N4756A | 47 | 5.5 | 80 | 1500 | 0.25 | 5.0 | 35.8 | 19 | 95 |
| 1N4757A | 51 | 5.0 | 95 | 1500 | 0.25 | 5.0 | 38.8 | 18 | 90 |
| 1N4758A | 56 | 4.5 | 110 | 2000 | 0.25 | 5.0 | 42.6 | 16 | 80 |
| 1N4759A | 62 | 4.0 | 125 | 2000 | 0.25 | 5.0 | 47.1 | 14 | 70 |
| 1N4760A | 68 | 3.7 | 150 | 2000 | 0.25 | 5.0 | 51.7 | 13 | 65 |
| 1N4761A | 75 | 3.3 | 175 | 2000 | 0.25 | 5.0 | 56.0 | 12 | 60 |
| 1N4762A | 82 | 3.0 | 200 | 3000 | 0.25 | 5.0 | 62.2 | 11 | 55 |
| 1N4763A | 91 | 2.8 | 250 | 3000 | 0.25 | 5.0 | 69.2 | 10 | 50 |
| 1N4764A | 100 | 2.5 | 350 | 3000 | 0.25 | 5.0 | 76.0 | 9.0 | 45 |

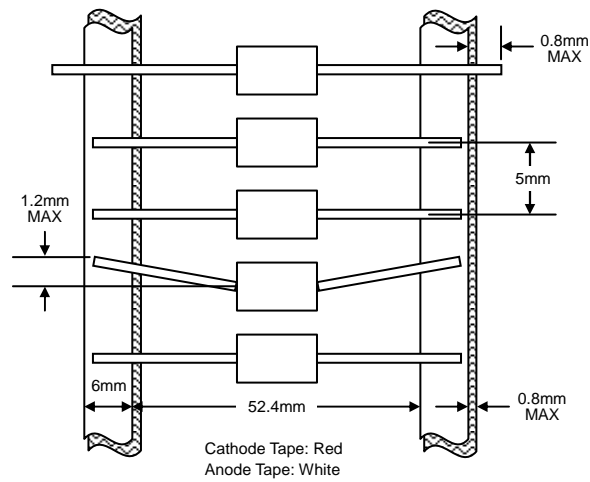
- Note: 1. Type numbers listed have standard tolerance on the nominal zener voltage of $\pm 5\%$.
2. Measured under thermal equilibrium and DC (I_{zT}) test conditions.
3. The Zener impedance is derived from the 60Hz AC voltage which results when an AC current having an RMS value equal to 10% of the Zener current (I_{zT} or I_{zK}) is superimposed on I_{zT} or I_{zK} . Zener impedance is measured at two points to insure a sharp knee on the breakdown curve and to eliminate unstable units.

MARKING INFORMATION

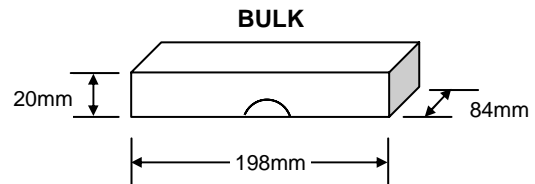
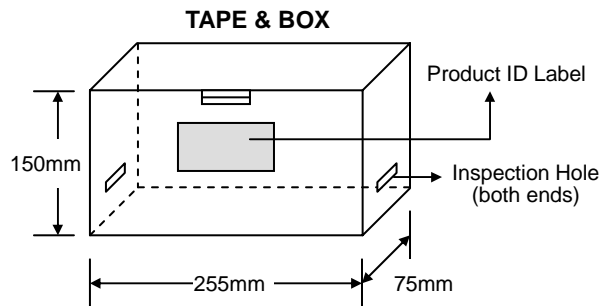
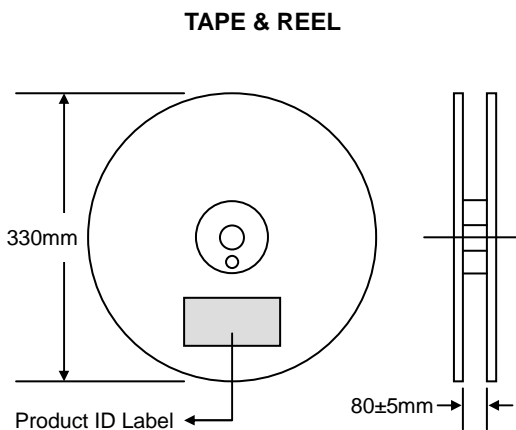


Cathode = Polarity Band
 1N47xxA = Device Number
 xx = 28, 29, 30...to 64
 WTE = Manufacturer's Logo

TAPING SPECIFICATIONS



PACKAGING INFORMATION



| Packaging | Reel Diameter / Box Size (mm) | Quantity (PCS) | Carton Size (mm) | Quantity (PCS) | Approx. Gross Weight (KG) |
|------------------------|-------------------------------|----------------|------------------|----------------|---------------------------|
| TAPE & REEL | 330 | 5,000 | 370 x 370 x 420 | 25,000 | 13.0 |
| TAPE & BOX | 255 x 75 x 150 | 5,000 | 400 x 273 x 415 | 50,000 | 21.0 |
| BULK | 198 x 84 x 20 | 1,000 | 459 x 214 x 256 | 50,000 | 19.5 |

Note: 1. Paper reel, white or gray color. Core material: plastic or metal.
 2. Components are packed in accordance with EIA standard RS-296-E.

ORDERING INFORMATION

| Product No. | Package Type | Shipping Quantity |
|-------------------|--------------|-------------------|
| 1N47xxA-T3 | DO-41 | 5000/Tape & Reel |
| 1N47xxA-TB | DO-41 | 5000/Tape & Box |
| 1N47xxA | DO-41 | 1000 Units/Box |

1. Products listed in **bold** are WTE **Preferred** devices.
2. Shipping quantity given is for minimum packing quantity only. For minimum order quantity, please consult the Sales Department.
3. **To order RoHS / Lead Free version (with Lead Free finish), add "-LF" suffix to part number above. For example, 1N4728A-TB-LF.**

Won-Top Electronics Co., Ltd (WTE) has checked all information carefully and believes it to be correct and accurate. However, WTE cannot assume any responsibility for inaccuracies. Furthermore, this information does not give the purchaser of semiconductor devices any license under patent rights to manufacturer. WTE reserves the right to change any or all information herein without further notice.

WARNING: DO NOT USE IN LIFE SUPPORT EQUIPMENT. WTE power semiconductor products are not authorized for use as critical components in life support devices or systems without the express written approval.

Won-Top Electronics Co., Ltd.

No. 44 Yu Kang North 3rd Road, Chine Chen Dist., Kaohsiung, Taiwan

Phone: 886-7-822-5408 or 886-7-822-5410

Fax: 886-7-822-5417

Email: sales@wontop.com

Internet: <http://www.wontop.com>

We power your everyday.