


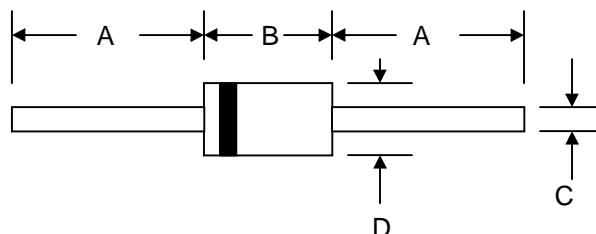
# 1N4728A – 1N4764A



## 1.0W ZENER DIODE

### Features

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



### Mechanical Data

- Case: DO-41 Glass Package
- 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 GLASS		
Dim	Min	Max
A	25.40	—
B	4.10	5.20
C	0.65	0.75
D	2.50	3.20
All Dimensions in mm		

### Maximum Ratings @ $T_A=25^\circ C$ unless otherwise specified

Characteristic	Symbol	Value	Unit
Peak Pulse Power Dissipation at $T_A = 50^\circ C$ (Note 1) Derate above $50^\circ C$	$P_d$	1.0 6.67	W mW/ $^\circ C$
Peak Forward Surge Current (Note 2)	$I_{FSM}$	10	A
Forward Voltage @ $I_F = 200mA$	$V_F$	1.2	V
Operating and Storage Temperature Range	$T_i, T_{STG}$	-65 to +150	$^\circ C$

Note: 1. Mounted on  $5.0mm^2$  (0.013mm thick) land area.  
2. Measured on 8.3ms single half sine-wave duty cycle = 4 pulses per minutes maximum.

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

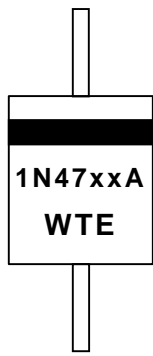
Type Number (Note 1)	Nominal Zener Voltage (Note 2)	Test Current	Maximum Zener Impedance (Note 3)			Leakage Current		Max Surge Current 8.3ms
	V <sub>Z</sub> @ I <sub>ZT</sub>		I <sub>ZT</sub>	Z <sub>ZT</sub> @ I <sub>ZT</sub>	Z <sub>ZK</sub> @ I <sub>ZK</sub>	I <sub>ZK</sub>	I <sub>R</sub>	
	(V)	(mA)	( $\Omega$ )	( $\Omega$ )	(mA)	( $\mu\text{A}$ )	(V)	(mA)
1N4728A	3.3	76	10	400	1.0	100	1.0	1380
1N4729A	3.6	69	10	400	1.0	100	1.0	1260
1N4730A	3.9	64	9.0	400	1.0	50	1.0	1190
1N4731A	4.3	58	9.0	400	1.0	10	1.0	1070
1N4732A	4.7	53	8.0	500	1.0	10	1.0	970
1N4733A	5.1	49	7.0	550	1.0	10	1.0	890
1N4734A	5.6	45	5.0	600	1.0	10	2.0	810
1N4735A	6.2	41	2.0	700	1.0	10	3.0	730
1N4736A	6.8	37	3.5	700	1.0	5.0	4.0	660
1N4737A	7.5	34	4.0	700	0.5	5.0	5.0	605
1N4738A	8.2	31	4.5	700	0.5	5.0	6.0	550
1N4739A	9.1	28	5.0	700	0.5	0.5	7.0	500
1N4740A	10	25	7.0	700	0.25	0.5	7.6	454
1N4741A	11	23	8.0	700	0.25	0.1	8.4	414
1N4742A	12	21	9.0	700	0.25	0.1	9.1	380
1N4743A	13	19	10	700	0.25	0.1	9.9	344
1N4744A	15	17	14	700	0.25	0.1	11.4	304
1N4745A	16	15.5	16	700	0.25	0.1	12.2	285
1N4746A	18	14	20	750	0.25	0.1	13.7	250
1N4747A	20	12.5	22	750	0.25	0.1	15.2	225
1N4748A	22	11.5	23	750	0.25	0.1	16.7	205
1N4749A	24	10.5	25	750	0.25	0.1	18.2	190
1N4750A	27	9.5	35	750	0.25	0.1	20.6	170
1N4751A	30	8.5	40	1000	0.25	0.1	22.8	150
1N4752A	33	7.5	45	1000	0.25	0.1	25.1	135
1N4753A	36	7.0	50	1000	0.25	0.1	27.4	125
1N4754A	39	6.5	60	1000	0.25	0.1	29.7	115
1N4755A	43	6.0	70	1500	0.25	0.1	32.7	110
1N4756A	47	5.5	80	1500	0.25	0.1	35.8	95
1N4757A	51	5.0	95	1500	0.25	0.1	38.8	90
1N4758A	56	4.5	110	2000	0.25	0.1	42.6	80
1N4759A	62	4.0	125	2000	0.25	0.1	47.1	70
1N4760A	68	3.7	150	2000	0.25	0.1	51.7	65
1N4761A	75	3.3	175	2000	0.25	0.1	56.0	60
1N4762A	82	3.0	200	3000	0.25	0.1	62.2	55
1N4763A	91	2.8	250	3000	0.25	0.1	69.2	50
1N4764A	100	2.5	350	3000	0.25	0.1	76.0	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<sub>ZT</sub>) test conditions.

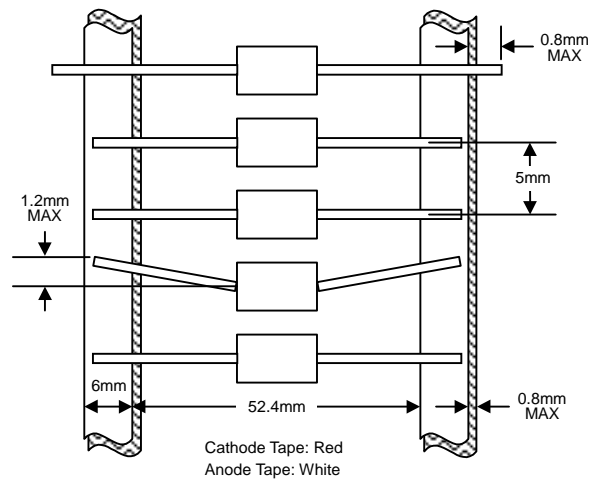
3. The Zener impedance is derived from the 60Hz AC voltage which results when an AC current having an RMS value equal to 10% of the Zener current (I<sub>ZT</sub> or I<sub>ZK</sub>) is superimposed on I<sub>ZT</sub> or I<sub>ZK</sub>. Zener impedance is measured at two points to insure a sharp knee on the breakdown curve and to eliminate unstable units.

## MARKING INFORMATION

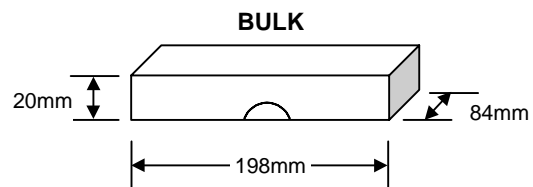
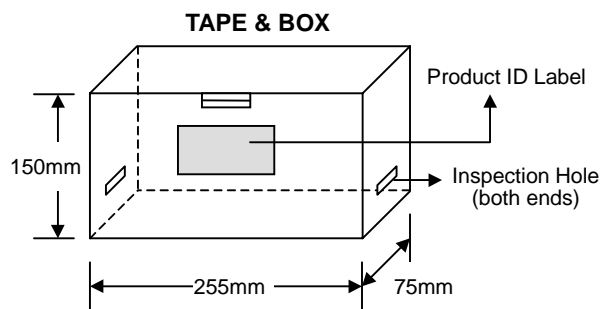


Cathode = Polarity Band  
 1N47xxA = Device Number  
 xx = 28, 29, 30...to 64  
 WTE = Manufacturer's Logo

## TAPING SPECIFICATIONS



## PACKAGING INFORMATION



Packaging	Reel Diameter / Box Size (mm)	Quantity (PCS)	Carton Size (mm)	Quantity (PCS)	Approx. Gross Weight (KG)
<b>TAPE &amp; REEL</b>	330	5,000	370 x 370 x 420	25,000	13.0
<b>TAPE &amp; BOX</b>	255 x 75 x 150	5,000	400 x 273 x 415	50,000	21.0
<b>BULK</b>	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 Glass	5000/Tape & Reel
<b>1N47xxA-TB</b>	DO-41 Glass	5000/Tape & Box
1N47xxA	DO-41 Glass	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.**

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**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.

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*We power your everyday.*