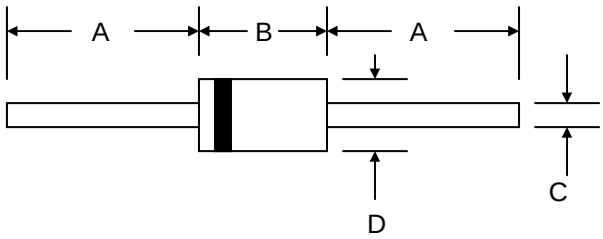
1N4728A – 1N4764A

1.0W ZENER DIODE

Features

- Glass Passivated Die Construction
- 1.0 Watt Power Dissipation
- 3.3 – 100V Nomimal Zener Voltage
- 5% Standard Vz Tolerance
- Low Inductance
- Typical I_R Less Than 5.0µA 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°C unless otherwise specified

Characteristic	Symbol	Value	Unit
DC Power Dissipation at T_L = 50°C (Note 1) Derate above 50°C	P_d	1.0 6.67	W mW/°C
Forward Voltage @ I_F = 200mA	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	°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.

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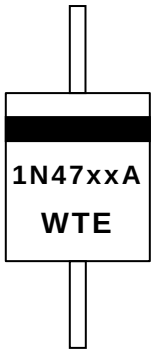
Electrical Characteristics @T_A=25°C unless otherwise specified

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 ±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.

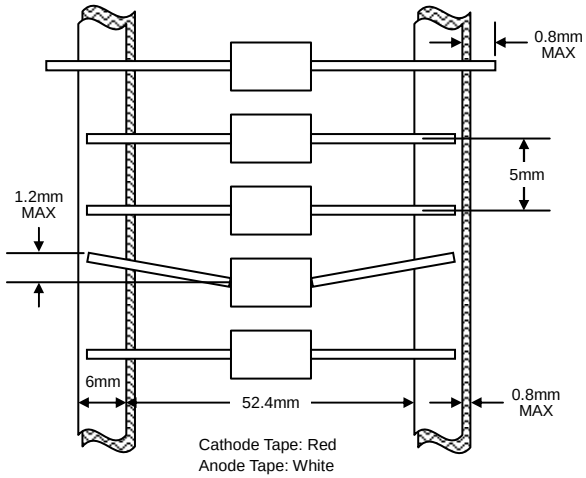
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MARKING INFORMATION



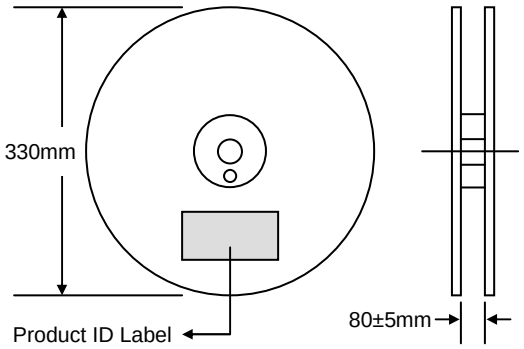
Cathode	= Polarity Band
1N47xxA	= Device Number
xx	= 28, 29, 30…to 64
WTE	= Manufacturer's Logo

TAPING SPECIFICATIONS

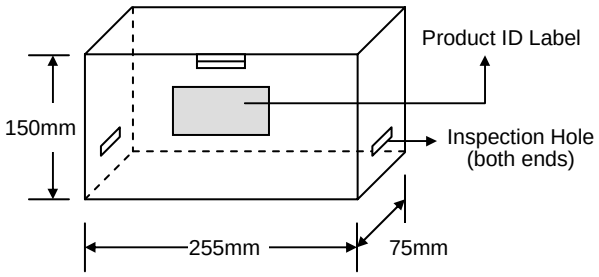


PACKAGING INFORMATION

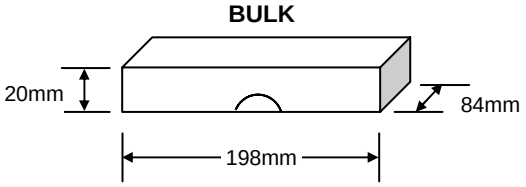
TAPE & REEL



TAPE & BOX



BULK



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.

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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**.

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