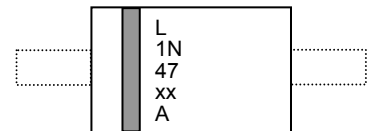


## 1 Watt DO-41 Hermetically Sealed Glass Zener Voltage Regulators


 AXIAL LEAD  
DO41

### Maximum Ratings

Rating	Symbol	Value	Units
Maximum Steady State Power Dissipation @TL≤50°C, Lead Length = 3/8"	P <sub>D</sub>	1	W
Derate Above 50°C		6.67	mW/°C
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>stg</sub>	-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

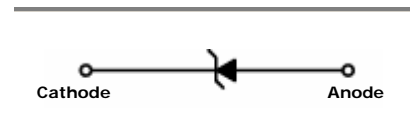
### Specification Features:

**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 <sub>Z</sub> (Volts)			@I <sub>ZT</sub>	Z <sub>ZT</sub> @I <sub>ZT</sub>	Z <sub>ZK</sub> @I <sub>ZK</sub>		I <sub>R</sub> @ V <sub>R</sub>	
		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<sub>F</sub> = 1.2V Max @I<sub>F</sub> = 200mA for 60V below types, and V<sub>F</sub> = 1.4V Max @I<sub>F</sub> = 200mA for 60V above types

**1. TOLERANCE AND TYPE NUMBER DESIGNATION (V<sub>Z</sub>)**

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.

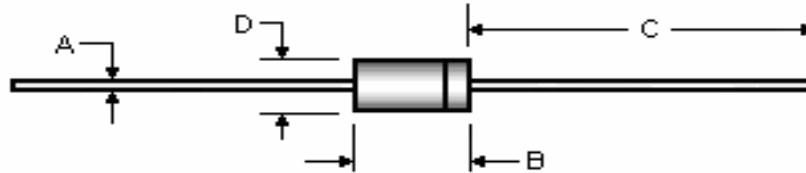
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**3. ZENER VOLTAGE ( $V_z$ ) MEASUREMENT**

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
<b>A</b>	0.72	0.86	0.028	0.034
<b>B</b>	4.07	5.20	0.160	0.205
<b>C</b>	25.40	---	1.000	---
<b>D</b>	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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