

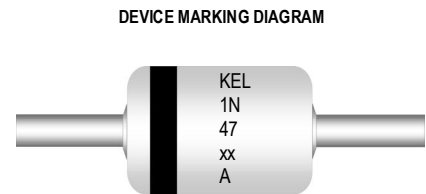
### 1 Watt DO-41 Hermetically Sealed Glass Zener Voltage Regulators



AXIAL LEAD  
DO41

#### Absolute Maximum Ratings $T_A = 25^\circ\text{C}$ unless otherwise noted

Parameter	Value	Units
Storage Temperature Range	-65 to +200	$^\circ\text{C}$
Maximum Junction Operating Temperature	+200	$^\circ\text{C}$
Total Device Dissipation	1.0	Watt
Thermal Resistance Junction to Lead	53.5	$^\circ\text{C} / \text{W}$
Thermal Resistance Junction to Ambient	100	$^\circ\text{C} / \text{W}$

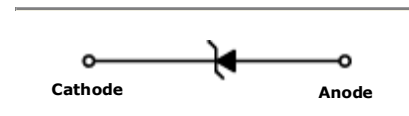


DEVICE MARKING DIAGRAM  
KEL : Logo  
Device Code : 1N47xxA

These ratings are limiting values above which the serviceability of the diode may be impaired.

#### Specification Features:

- Zener Voltage Range 3.3 to 56 Volts
- Through-Hole Device Type Mounting
- Hermetically Sealed Glass
- Compression Bonded Construction
- All External Surfaces Are Corrosion Resistant And Leads Are Readily Solderable
- RoHS Compliant
- Solder Hot Dip Tin (Sn) Terminal Finish
- Cathode Indicated By Polarity Band



ELECTRICAL SYMBOL

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

Device Type	$V_Z @ I_{ZT}$ (Volts) Nominal	$I_{ZT}$ (mA)	$Z_{ZT} @ I_{ZT}$ ( $\Omega$ ) Max	$I_{ZK}$ (mA)	$Z_{ZK} @ I_{ZK}$ ( $\Omega$ ) Max	$I_R @ V_R$ ( $\mu\text{A}$ ) Max	$V_R$ (Volts)
1N4728A	3.3	76	10	1	400	100	1
1N4729A	3.6	69	10	1	400	100	1
1N4730A	3.9	64	9	1	400	50	1
1N4731A	4.3	58	9	1	400	10	1
1N4732A	4.7	53	8	1	500	10	1
1N4733A	5.1	49	7	1	550	10	1
1N4734A	5.6	45	5	1	600	10	2
1N4735A	6.2	41	2	1	700	10	3
1N4736A	6.8	37	3.5	1	700	10	4
1N4737A	7.5	34	4	0.5	700	10	5
1N4738A	8.2	31	4.5	0.5	700	10	6
1N4739A	9.1	28	5	0.5	700	10	7
1N4740A	10	25	7	0.25	700	10	7.6
1N4741A	11	23	8	0.25	700	5	8.4
1N4742A	12	21	9	0.25	700	5	9.1
1N4743A	13	19	10	0.25	700	5	9.9
1N4744A	15	17	14	0.25	700	5	11.4

**Electrical Characteristics**T<sub>A</sub> = 25°C unless otherwise noted

Device Type	V <sub>Z</sub> @ I <sub>ZT</sub> (Volts) Nominal	I <sub>ZT</sub> (mA)	Z <sub>ZT</sub> @ I <sub>ZT</sub> (Ω) Max	I <sub>ZK</sub> (mA)	Z <sub>ZK</sub> @ I <sub>ZK</sub> (Ω) Max	I <sub>R</sub> @ V <sub>R</sub> (μA) Max	V <sub>R</sub> (Volts)
1N4745A	16	15.5	16	0.25	700	5	12.2
1N4746A	18	14	20	0.25	700	5	13.7
1N4747A	20	12.5	22	0.25	750	5	15.2
1N4748A	22	11.5	23	0.25	750	5	16.7
1N4749A	24	10.5	25	0.25	750	5	18.2
1N4750A	27	9.5	35	0.25	750	5	20.6
1N4751A	30	8.5	40	0.25	1000	5	22.8
1N4752A	33	7.5	45	0.25	1000	5	25.1
1N4753A	36	7	50	0.25	1000	5	27.4
1N4754A	39	6.5	60	0.25	1000	5	29.7
1N4755A	43	6	70	0.25	1500	5	32.7
1N4756A	47	5.5	80	0.25	1500	5	35.8
1N4757A	51	5	95	0.25	1500	5	38.8
1N4758A	56	4.5	110	0.25	2000	5	42.6

V<sub>F</sub> Forward Voltage = 1.2 V Maximum @ I<sub>F</sub> = 200 mA for all types**Notes:****1. TOLERANCE AND TYPE NUMBER DESIGNATION (V<sub>Z</sub>)**

The type numbers listed have a standard tolerance on the nominal zener voltage of ± 5%. Device tolerance of ±2% is indicated by a "C" instead of an "A".

**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.

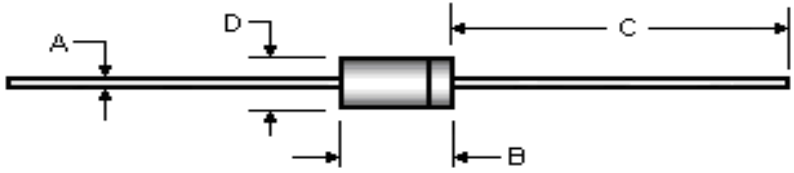
**3. ZENER VOLTAGE (V<sub>Z</sub>) MEASUREMENT**

The zener voltage (V<sub>Z</sub>) is tested under pulse condition.

**4. ZENER IMPEDANCE (Z<sub>Z</sub>) 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<sub>ZT</sub> or I<sub>ZK</sub>) is superimposed on I<sub>ZT</sub> or I<sub>ZK</sub>.

## Package Outline

Package	Case Outline				
DO-41					
	<b>D0-41</b>				
	<b>DIM</b>	<b>Millimeters</b>		<b>Inches</b>	
		Min	Max	Min	Max
	<b>A</b>	0.68	0.81	0.027	0.032
	<b>B</b>	3.70	4.25	0.146	0.167
	<b>C</b>	25.40	---	1.000	---
<b>D</b>	2.10	2.60	0.083	0.102	

**Notes:**

- DO41 polarity denoted by cathode band.



## NOTICE

The information presented in this document is for reference only. Tak Cheong reserves the right to make changes without notice for the specification of the products displayed herein.

The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), Tak Cheong Semiconductor Co., Ltd., or anyone on its behalf, assumes no responsibility or liability for any damages resulting from such improper use of sale.

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