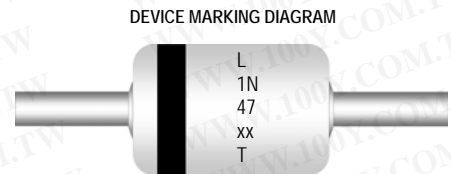


1 Watt DO-41 Hermetically Sealed Glass Zener Voltage Regulators


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	$^\circ\text{C} / \text{W}$
Lead Temperature (1/16" from case for 10 seconds)	+230	$^\circ\text{C}$

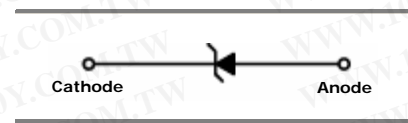


L : Logo
 Device Code : TC1N47xxT
 VZ Tolerance (T) : A = $\pm 5\%$
 C = $\pm 2\%$

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
- DO-41 Package (JEDEC)
- Through-Hole Device Type Mounting
- Hermetically Sealed Glass
- Compression Bonded Construction
- All external surfaces are corrosion resistant and leads are readily solderable
- 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)	$Z_{ZT} @ I_{ZT}$ (Ω) Max	I_{ZK} (mA)	$Z_{ZK} @ I_{ZK}$ (Ω) Max	$I_R @ V_R$ (μA) Max	V_R (Volts)
TC1N4728A	3.3	76	10	1	400	100	1
TC1N4729A	3.6	69	10	1	400	100	1
TC1N4730A	3.9	64	9	1	400	50	1
TC1N4731A	4.3	58	9	1	400	10	1
TC1N4732A	4.7	53	8	1	500	10	1
TC1N4733A	5.1	49	7	1	550	10	1
TC1N4734A	5.6	45	5	1	600	10	2
TC1N4735A	6.2	41	2	1	700	10	3
TC1N4736A	6.8	37	3.5	1	700	10	4
TC1N4737A	7.5	34	4	0.5	700	10	5
TC1N4738A	8.2	31	4.5	0.5	700	10	6
TC1N4739A	9.1	28	5	0.5	700	10	7
TC1N4740A	10	25	7	0.25	700	10	7.6
TC1N4741A	11	23	8	0.25	700	5	8.4
TC1N4742A	12	21	9	0.25	700	5	9.1
TC1N4743A	13	19	10	0.25	700	5	9.9
TC1N4744A	15	17	14	0.25	700	5	11.4
TC1N4745A	16	15.5	16	0.25	700	5	12.2
TC1N4746A	18	14	20	0.25	700	5	13.7
TC1N4747A	20	12.5	22	0.25	750	5	15.2
TC1N4748A	22	11.5	23	0.25	750	5	16.7
TC1N4749A	24	10.5	25	0.25	750	5	18.2

Electrical Characteristics T_A = 25°C unless otherwise noted

Device Type	V _Z @ I _{ZT} (Volts) Nominal	I _{ZT} (mA)	Z _{ZT} @ I _{ZT} (Ω) Max	I _{ZK} (mA)	Z _{ZK} @ I _{ZK} (Ω) Max	I _R @ V _R (μA) Max	V _R (Volts)
TC1N4750A	27	9.5	35	0.25	750	5	20.6
TC1N4751A	30	8.5	40	0.25	1000	5	22.8
TC1N4752A	33	7.5	45	0.25	1000	5	25.1
TC1N4753A	36	7	50	0.25	1000	5	27.4
TC1N4754A	39	6.5	60	0.25	1000	5	29.7
TC1N4755A	43	6	70	0.25	1500	5	32.7
TC1N4756A	47	5.5	80	0.25	1500	5	35.8
TC1N4757A	51	5	95	0.25	1500	5	38.8
TC1N4758A	56	4.5	110	0.25	2000	5	42.6

V_F Forward Voltage = 1.2 V Maximum @ I_F = 200 mA for all types

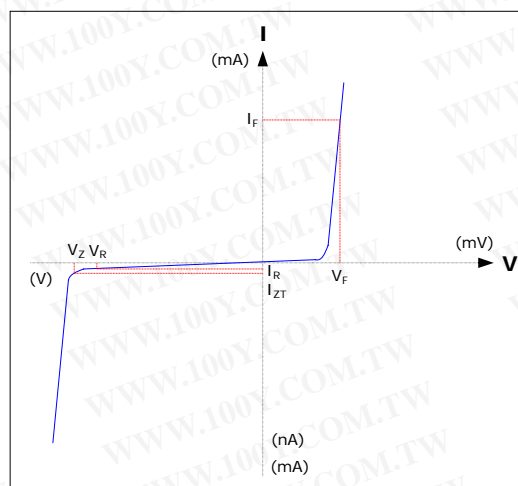
Notes:

1. The device 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. For detailed information on price, availability and delivery of nominal zener voltages between the voltages shown and tighter voltage tolerances, contact your nearest Tak Cheong's representative.
3. 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 to I_{ZT} or I_{ZK}.

Electrical Symbol Definition

Symbol	Parameter
V _Z	Reverse Zener Voltage @ I _{ZT}
I _{ZT}	Reverse Current
Z _{ZT}	Maximum Zener Impedance @ I _{ZT}
I _{ZK}	Reverse Current
Z _{ZK}	Maximum Zener Impedance @ I _{ZK}
I _R	Reverse Leakage Current @ V _R
V _R	Breakdown Voltage
I _F	Forward Current
V _F	Forward Voltage @ I _F

Typical Characteristics



Ordering Information

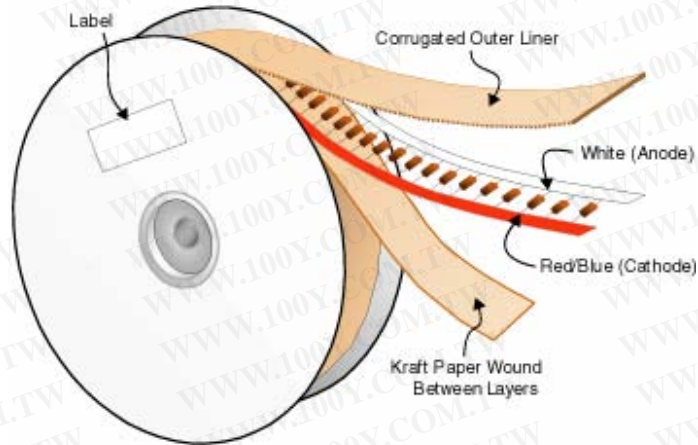
Device	Package	Quantity
TC1N47xxA	Bulk	5,000
TC1N47xxA.TB	Tape and Ammo	3,000
TC1N47xxA.TR	Tape and Reel	5,000
TC1N47xxA	Others (...contact Tak Cheong sales representatives)	

Axial-Lead Tape Packaging Standards

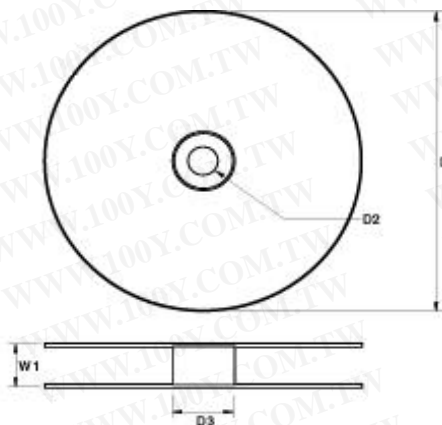
This axial-lead component's packaging requirements use in automatic testing and assembly equipment. And this standard practices for lead-tape packaging of axial-lead components meets the requirements of EIA Standard RS-296-D "Lead-taping of Components on Axial Lead Configuration for Automatic Insertion".

Tape & Reel Packaging Information

Tape & Reel Outline



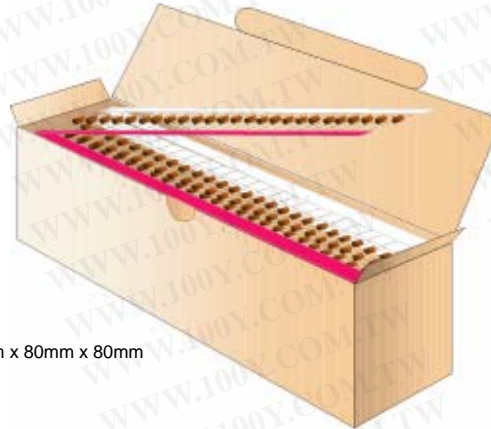
Reel Dimensions



DIM	Millimeters
D1	356
D2	30
D3	84
W1	77.5

Quantity Per Reel

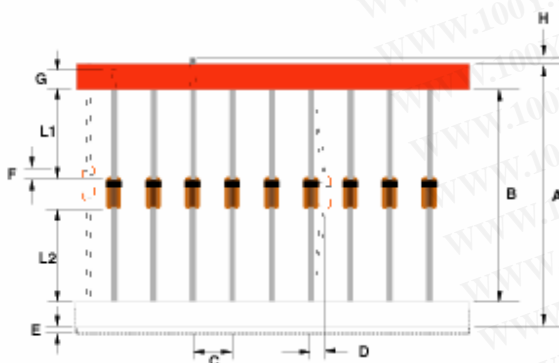
PKG Type	Quantity Per Reel
DO-41	5,000

Tape & Ammo Packaging Information
Tape & Ammo Outline


250mm x 80mm x 80mm

Quantity Per Ammo Box

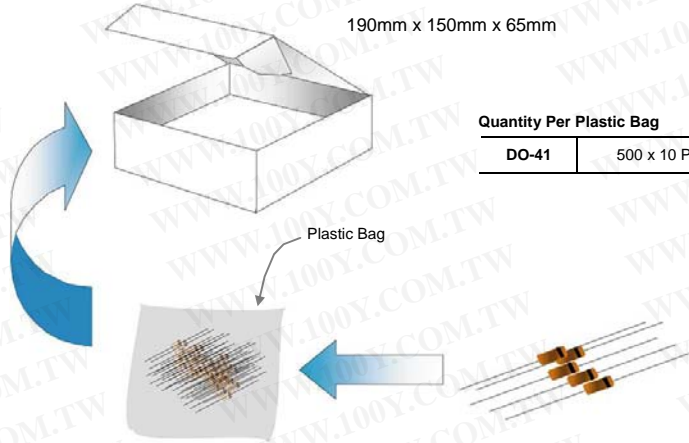
PKG Type	Quantity Per Box
DO-41	3,000

Taping Dimensions


Description	Millimeters	
	Standard Width	52
Tape Spacing (B)	52 ± 0.69	26 +0.5 / -0
Component Pitch (C)	5.08 ± 0.4	5.08 ± 0.4
Untaped Lead (L1 - L2)	± 0.69	± 0.69
Glass Offset (F)	± 0.69	± 0.69
Bent (D)	1.2 Max	1.2 Max
Tape Width (G)	6.138 ± 0.576	6.138 ± 0.576
Tape Mismatch (E)	0.55 Max	0.55 Max
Taped Lead (G)	3.2 Min	3.2 Min
Lead Beyond Tape (H)	0	0

Bulk Packaging Information

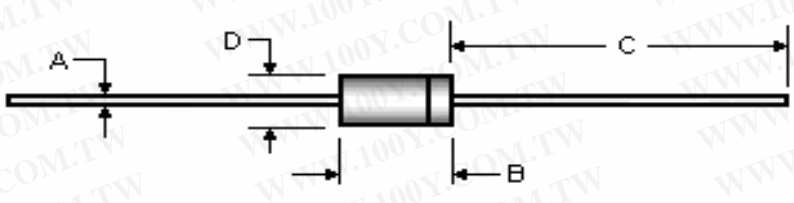
Bulk Outline



Quantity Per Box

PKG Type	Quantity Per Box
DO-41	5,000

Package Outline

Package	Case Outline			
DO-41				
D0-41	D0-41			
DIM	Millimeters		Inches	
	Min	Max	Min	Max
A	0.72	0.86	0.028	0.034
B	4.07	5.20	0.160	0.205
C	25.40	---	1.000	---
D	2.04	2.71	0.080	0.107

Notes:

1. All dimensions are within JEDEC standard.
2. DO41 polarity denoted by cathode band.