

500 mW DO-35 Hermetically Sealed Glass Zener Voltage Regulators

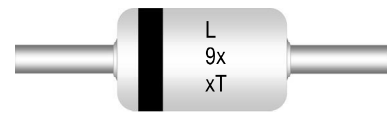

**AXIAL LEAD
DO35**

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

Parameter	Value	Units
Power Dissipation	500	mW
Storage Temperature Range	-65 to +200	$^\circ\text{C}$
Operating Junction Temperature	+200	$^\circ\text{C}$

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

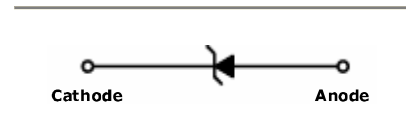
DEVICE MARKING DIAGRAM



L : Logo
 Device Code : TC1N9xxT
 Tolerance (T) : A = 10%
 B = 5%
 C = 2%
 D = 1%

Specification Features:

- Zener Voltage Range 6.8 to 56 Volts
- DO-35 Package (JEDEC)
- 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) Lead 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)	$Z_{ZT} @ I_{ZT}$ (Ω) Max	$Z_{ZK} @ I_{ZK} = 0.25\text{mA}$ (Ω) Max	$I_R @ V_R$ (μA) Max	V_R (Volts)
TC1N957B	6.8	18.5	4.5	700	150	5.2
TC1N958B	7.5	16.5	5.5	700	75	5.7
TC1N959B	8.2	15	6.5	700	50	6.2
TC1N960B	9.1	14	7.5	700	25	6.9
TC1N961B	10	12.5	8.5	700	10	7.6
TC1N962B	11	11.5	9.5	700	5	8.4
TC1N963B	12	10.5	11.5	700	5	9.1
TC1N964B	13	9.5	13	700	5	9.9
TC1N965B	15	8.5	16	700	5	11.4
TC1N966B	16	7.8	17	700	5	12.2
TC1N967B	18	7	21	750	5	13.7
TC1N968B	20	6.2	25	750	5	15.2
TC1N969B	22	5.6	29	750	5	16.7
TC1N970B	24	5.2	33	750	5	18.2
TC1N971B	27	4.6	41	750	5	20.6
TC1N972B	30	4.2	49	1000	5	22.8
TC1N973B	33	3.8	58	1000	5	25.1
TC1N974B	36	3.4	70	1000	5	27.4
TC1N975B	39	3.2	80	1000	5	29.7
TC1N976B	43	3	93	1500	5	32.7


SEMICONDUCTOR
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	$Z_{ZK} @ I_{ZK} = 0.25\text{mA}$ (Ω) Max	$I_R @ V_R$ (μA) Max	V_R (Volts)
TC1N977B	47	2.7	105	1500	5	35.8
TC1N978B	51	2.5	125	1500	5	38.8
TC1N979B	56	2.2	150	2000	5	42.6

V_F Forward Voltage = 1.5 V Maximum @ $I_F = 200$ mA for all types

Notes:
1. TOLERANCE AND VOLTAGE DESIGNATION

The type numbers listed have zener voltage as shown and have a standard tolerance on the nominal zener voltage of $\pm 5\%$. Suffix A = $\pm 10\%$, Suffix C = $\pm 2\%$ and D = $\pm 1\%$.

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_Z) MEASUREMENT

The zener voltage (V_Z) is tested under pulse condition.

4. ZENER IMPEDANCE (Z_Z) DERIVATION

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}) is superimposed to I_{ZT} .

Package Outline

Package	Case Outline				
DO-35					
	DIM	DO-35			
		Millimeters		Inches	
		Min	Max	Min	Max
	A	0.46	0.55	0.018	0.022
	B	3.05	5.08	0.120	0.200
C	25.40	38.10	1.000	1.500	
D	1.53	2.28	0.060	0.090	

Notes:

1. All dimensions are within JEDEC standard.
2. DO35 polarity denoted by cathode band.