TAK CHEONG®

SEMICONDUCTOR

500 mW DO-35 Hermetically Sealed Glass Zener Voltage Regulators

AXIAL LEAD
DO35

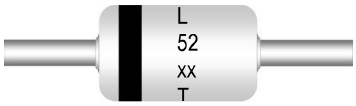
Absolute Maximum Ratings

T_A = 25°C unless otherwise noted

Parameter	Value	Units
Power Dissipation	500	mW
Storage Temperature Range	-65 to +200	°C
Operating Junction Temperature	+200	°C

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

DEVICE MARKING DIAGRAM



L : Logo
Device Code : TC1N52xxT
VZ Tolerance (T) : B = ±5%
C = ±2%

Specification Features:

- Zener Voltage Range 2.4 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°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} = 0.25mA (Ω) Max	I_R @ V_R (μA) Max	V_R (Volts)
TC1N5221B	2.4	20	30	1200	100	1
TC1N5222B	2.5	20	30	1250	100	1
TC1N5223B	2.7	20	30	1300	75	1
TC1N5224B	2.8	20	30	1400	75	1
TC1N5225B	3	20	29	1600	50	1
TC1N5226B	3.3	20	28	1600	25	1
TC1N5227B	3.6	20	24	1700	15	1
TC1N5228B	3.9	20	23	1900	10	1
TC1N5229B	4.3	20	22	2000	5	1
TC1N5230B	4.7	20	19	1900	5	2
TC1N5231B	5.1	20	17	1600	5	2
TC1N5232B	5.6	20	11	1600	5	3
TC1N5233B	6	20	7	1600	5	3.5
TC1N5234B	6.2	20	7	1000	5	4
TC1N5235B	6.8	20	5	750	3	5
TC1N5236B	7.5	20	6	500	3	6
TC1N5237B	8.2	20	8	500	3	6.5
TC1N5238B	8.7	20	8	600	3	6.5
TC1N5239B	9.1	20	10	600	3	7
TC1N5240B	10	20	17	600	3	8

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TC1N5241B	11	20	22	600	2	8.4
TC1N5242B	12	20	30	600	1	9.1
TC1N5243B	13	9.5	13	600	0.5	9.9
TC1N5244B	14	9	15	600	0.1	10
TC1N5245B	15	8.5	16	600	0.1	11
TC1N5246B	16	7.8	17	600	0.1	12
TC1N5247B	17	7.4	19	600	0.1	13
TC1N5248B	18	7	21	600	0.1	14
TC1N5249B	19	6.6	23	600	0.1	14
TC1N5250B	20	6.2	25	600	0.1	15
TC1N5251B	22	5.6	29	600	0.1	17
TC1N5252B	24	5.2	33	600	0.1	18
TC1N5253B	25	5	35	600	0.1	19
TC1N5254B	27	4.6	41	600	0.1	21
TC1N5255B	28	4.5	44	600	0.1	21
TC1N5256B	30	4.2	49	600	0.1	23
TC1N5257B	33	3.8	58	700	0.1	25
TC1N5258B	36	3.4	70	700	0.1	27
TC1N5259B	39	3.2	80	800	0.1	30
TC1N5258B	36	3.4	70	700	0.1	27
TC1N5259B	39	3.2	80	800	0.1	30
TC1N5260B	43	3	93	900	0.1	33
TC1N5261B	47	2.7	105	1000	0.1	36
TC1N5262B	51	2.5	125	1100	0.1	39
TC1N5263B	56	2.2	150	1300	0.1	43

V_F Forward Voltage = 1.1 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 ±5%. Device of ±2% is indicated by a "C" instead of a "B"

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} .

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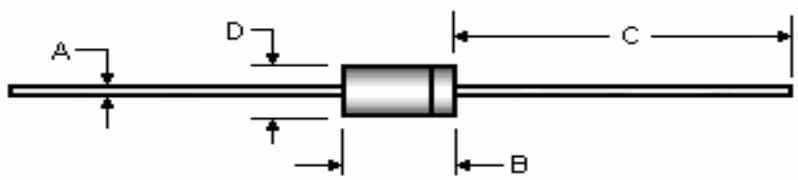
Package Outline

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.