

500 mW DO-35 Hermetically Sealed Glass Zener Voltage Regulators



Maximum Ratings (Note 1)

Rating	Symbol	Value	Units
Maximum Steady State Power Dissipation @TL≤75°C, Lead Length = 3/8"	P _D	500	mW
Derate Above 75°C		4.0	mW/°C
Operating and Storage Temperature Range	T _J , T _{stg}	-65 to +200	°C

Note 1: Some part number series have lower JEDEC registered ratings.

Specification Features:

- Zener Voltage Range = 2.4V to 12V
- ESD Rating of Class 3 (>6 KV) per Human Body Model
- DO-35 Package (DO-204AH)
- Double Slug Type Construction
- Metallurgical Bonded Construction
- RoHS Compliant
- Solder Hot Dip Tin (Sn) Lead Finish

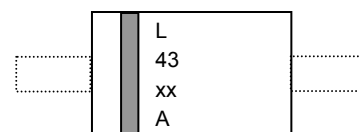
Specification Features:

Case : Double slug type, hermetically sealed glass

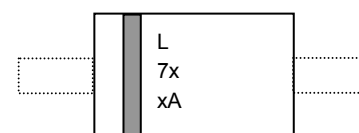
Finish : All external surfaces are corrosion resistant and leads are readily solderable

Polarity : Cathode indicated by polarity band

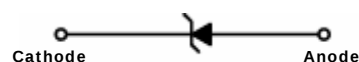
Mounting: Any



L = Logo
43xxA = 1N43xxA Device Code



L = Logo
7xxA = 1N7xxA Device Code



ELECTRICAL CHARACTERIZATION ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Device (Note 2.)	Device Marking	Zener Voltage (Note 3.)				Zener Impedance Z _{ZT} @I _{ZT} (Note 4.)	IR @VR = 1V		I _{ZM} (Note 5.)
		V _Z (Volts)			@I _{ZT}		T _{amb} 25°C	T _{amb} 125°C	
		Min	Nom	Max	(mA)				
1N4370A	1N4370A	2.28	2.4	2.52	20	30	100	200	150
1N4371A	1N4371A	2.57	2.7	2.84	20	30	75	150	135
1N4372A	1N4372A	2.85	3.0	3.15	20	29	50	100	120
1N746A	1N746A	3.14	3.3	3.47	20	28	10	30	110
1N747A	1N747A	3.42	3.6	3.78	20	24	10	30	100
1N748A	1N748A	3.71	3.9	4.10	20	23	10	30	95
1N749A	1N749A	4.09	4.3	4.52	20	22	2	30	85
1N750A	1N750A	4.47	4.7	4.94	20	19	2	30	75
1N751A	1N751A	4.85	5.1	5.36	20	17	1	20	70
1N752A	1N752A	5.32	5.6	5.88	20	11	1	20	65
1N753A	1N753A	5.89	6.2	6.51	20	7	0.1	20	60
1N754A	1N754A	6.46	6.8	7.14	20	5	0.1	20	55
1N755A	1N755A	7.13	7.5	7.88	20	6	0.1	20	50
1N756A	1N756A	7.79	8.2	8.61	20	8	0.1	20	45
1N757A	1N757A	8.65	9.1	9.56	20	10	0.1	20	40
1N758A	1N758A	9.50	10	10.5	20	17	0.1	20	35
1N759A	1N759A	11.4	12	12.6	20	30	0.1	20	30

VF Forward Voltage = 1.5V max @ $I_F = 200\text{mA}$ for all types

2. TOLERANCE AND VOLTAGE DESIGNATION

The type numbers listed have a standard tolerance on the nominal zener voltage of $\pm 5\%$.

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

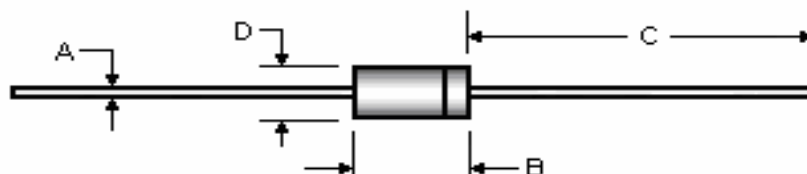
Z_{ZT} is measured by dividing the AC voltage drop across the device by the AC current applied. The specified limits are for $I_{Z(AC)} = 0.1 I_{Z(DC)}$ with AC frequency = 60Hz.

5. MAXIMUM ZENER CURRENT RATINGS (I_{ZM})

Values shown are based on the JEDEC rating of 400mW where the actual zener voltage (V_Z) is known at the operation point, the zener current may be increased and is limited by the derating curve.

Package Outline

Case Outline



DIM	DO-35			
	Millimeters		Inches	
	Min	Max	Min	Max
A	0.46	0.56	0.018	0.022
B	3.05	5.08	0.120	0.200
C	25.40	38.10	1.000	1.500
D	1.52	2.29	0.060	0.090

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>.

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