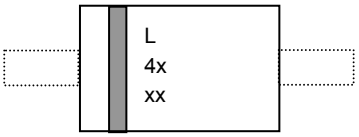
500 mW DO-35 Hermetically Sealed Glass Zener Voltage Regulators

AXIAL LEAD
DO35

Maximum Ratings (Note 1)

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

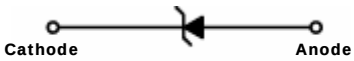
Note 1: Some part number series have lower JEDEC registered ratings.



L = Logo
43xxA = 1N43xxA Device Code

Specification Features:

- Zener Voltage Range = 1.8V to 43V
- 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

ELECTRICAL CHARACTERIZATION (T_A = 25°C unless otherwise noted)

Device (Note 2.)	Device Marking	Zener Voltage (Note 3.)				Leakage Current		I_{ZM} (Note 4.)	ΔV_Z (Note 5.)
		V_Z (Volts)			@I_{ZT}	IR @VR = 1V			
		Min	Nom	Max	(uA)	(uA Max)	(Volts)	(mA)	
1N4678	1N4678	1.710	1.8	1.890	50	7.5	1	120	0.70
1N4679	1N4679	1.900	2.0	2.100	50	5	1	110	0.70
1N4680	1N4680	2.090	2.2	2.310	50	4	1	100	0.75
1N4681	1N4681	2.280	2.4	2.520	50	2	1	95	0.80
1N4682	1N4682	2.565	2.7	2.835	50	1	1	90	0.85
1N4683	1N4683	2.850	3.0	3.150	50	0.8	1	85	0.90
1N4684	1N4684	3.135	3.3	3.465	50	7.5	1.5	80	0.95
1N4685	1N4685	3.420	3.6	3.780	50	7.5	2	75	0.95
1N4686	1N4686	3.705	3.9	4.095	50	5	2	70	0.97
1N4687	1N4687	4.085	4.3	4.515	50	4	2	65	0.99
1N4688	1N4688	4.465	4.7	4.935	50	10	3	60	0.99
1N4689	1N4689	4.845	5.1	5.355	50	10	3	55	0.97
1N4690	1N4690	5.320	5.6	5.880	50	10	4	50	0.96
1N4691	1N4691	5.890	6.2	6.510	50	10	5	45	0.95
1N4692	1N4692	6.460	6.8	7.140	50	10	5.1	35	0.90
1N4693	1N4693	7.125	7.5	7.875	50	1	5.7	31.8	0.75
1N4694	1N4694	7.790	8.2	8.610	50	1	6.2	29.0	0.50
1N4695	1N4695	8.265	8.7	9.135	50	1	6.6	27.4	0.10
1N4696	1N4696	8.645	9.1	9.555	50	1	6.9	26.2	0.08
1N4697	1N4697	9.500	10	10.500	50	1	7.6	24.8	0.10
1N4698	1N4698	10.45	11	11.55	50	0.05	8.4	21.6	0.11
1N4699	1N4699	11.40	12	12.60	50	0.05	9.1	20.4	0.12
1N4700	1N4700	12.35	13	13.65	50	0.05	9.8	19.0	0.13
1N4701	1N4701	13.30	14	14.70	50	0.05	10.6	17.5	0.14
1N4702	1N4702	14.25	15	15.75	50	0.05	11.4	16.3	0.15
1N4703	1N4703	15.20	16	16.80	50	0.05	12.1	15.4	0.16
1N4704	1N4704	16.15	17	17.85	50	0.05	12.9	14.5	0.17
1N4705	1N4705	17.10	18	18.90	50	0.05	13.6	13.2	0.18
1N4706	1N4706	18.05	19	19.95	50	0.05	14.4	12.5	0.19
1N4707	1N4707	19.00	20	21.00	50	0.01	15.2	11.9	0.20
1N4708	1N4708	20.90	22	23.10	50	0.01	16.7	10.8	0.22
1N4709	1N4709	22.80	24	25.20	50	0.01	18.2	9.9	0.24
1N4710	1N4710	23.75	25	26.25	50	0.01	19.0	9.5	0.25
1N4711	1N4711	25.65	27	28.35	50	0.01	20.4	8.8	0.27
1N4712	1N4712	26.60	28	29.40	50	0.01	21.2	8.5	0.28
1N4713	1N4713	28.50	30	31.50	50	0.01	22.8	7.9	0.30
1N4714	1N4714	31.35	33	34.65	50	0.01	25.0	7.2	0.33
1N4715	1N4715	34.20	36	37.80	50	0.01	27.3	6.6	0.36
1N4716	1N4716	37.05	39	40.95	50	0.01	29.6	6.1	0.39
1N4717	1N4717	40.85	43	45.15	50	0.01	32.6	5.5	0.43

VF Forward Voltage = 1.5V max @ I_F = 100mA for all types

2. TOLERANCE AND VOLTAGE DESIGNATION

The type numbers listed have a standard tolerance on the nominal zener voltage of ±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. MAXIMUM ZENER CURRENT RATINGS (I_{ZM})

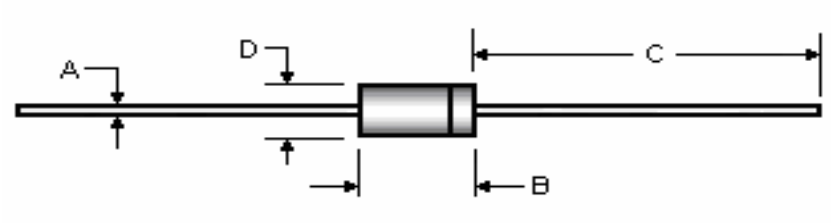
Maximum zener current rating is based on maximum zener voltage of the individual units and JEDEC 250mW rating.

5. MAXIMUM VOLTAGE CHANGE (ΔV_Z)

Voltage change is equal to the difference between V_Z at 100uA and at 10uA.

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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