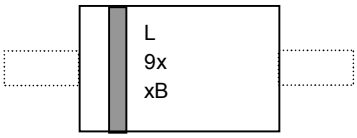
500 mW DO-35 Hermetically Sealed Glass Zener Voltage Regulators

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
9xxB = 1N9xxB Device Code

Specification Features:

- Zener Voltage Range = 6.8V to 100V
- 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.)				Zener Impedance (Note 4.)			Leakage Current		I_{ZM} (Note 5.)
		V_Z (Volts)			@I_{ZT}	Z_{ZT} @I_{ZT}	Z_{ZK} @I_{ZK}		IR @VR = 1V		
		Min	Nom	Max	(mA)	(Ω)	(Ω)	(mA)	(uA)	(Volts)	(mA)
1N957B	1N957B	6.460	6.8	7.140	18.5	4.5	700	1	150	5.2	47
1N958B	1N958B	7.125	7.5	8.875	16.5	5.5	700	0.5	75	5.7	42
1N959B	1N959B	7.790	8.2	8.610	15	6.5	700	0.5	50	6.2	38
1N960B	1N960B	8.645	9.1	9.555	14	7.5	700	0.5	25	6.9	35
1N961B	1N961B	9.500	10	10.500	12.5	8.5	700	0.25	10	7.6	32
1N962B	1N962B	10.45	11	11.55	11.5	9.5	700	0.25	5	8.4	28
1N963B	1N963B	11.40	12	12.60	10.5	11.5	700	0.25	5	9.1	26
1N964B	1N964B	12.35	13	13.65	9.5	13	700	0.25	5	9.9	24
1N965B	1N965B	14.25	15	15.75	8.5	16	700	0.25	5	11.4	21
1N966B	1N966B	15.20	16	16.8	7.8	17	700	0.25	5	12.2	19
1N967B	1N967B	17.10	18	18.90	7	21	750	0.25	5	13.7	17
1N968B	1N968B	19.00	20	21.00	6.2	25	750	0.25	5	15.2	15
1N969B	1N969B	20.90	22	23.10	5.6	29	750	0.25	5	16.7	14

VF Forward Voltage = 1.5V max @ I_F = 200mA for all types

2. TOLERANCE AND VOLTAGE DESIGNATION
The type numbers listed have a standard tolerance on the nominal zener voltage of ±5%.

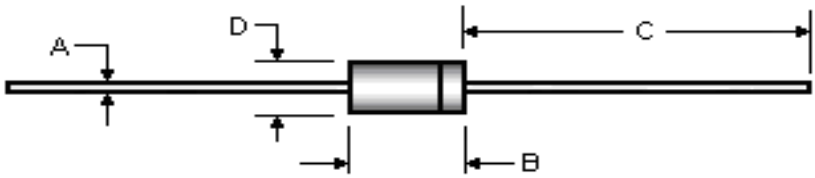
3. ZENER VOLTAGE (V_Z) MEASUREMENT
The zener voltage (**V_Z**) is tested under pulse condition. The measured **V_Z** is guaranteed to be within specification with device junction in thermal equilibrium.

4. ZENER IMPEDANCE (Z_Z) DERIVATION
Z_{ZT} and Z_{ZK} are 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.

NOTICE

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