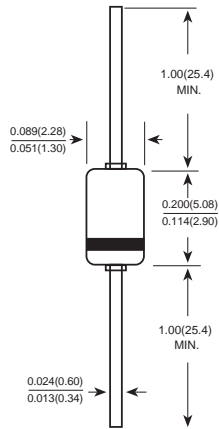


1N52xxB Series

DO-35 Glass Zener Diode

DO-35(GLASS)



Dimensions in inches and (millimeters)

FEATURES

- ◆ Low Reverse Leakage
- ◆ Low Zener Impedance
- ◆ Power Dissipation of 500mW
- ◆ High Stability and High Reliability

MECHANICAL DATA

Case: DO-35 Glass Case

Polarity: Color band denotes cathode end

Mounting Position: Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Parameters	Symbol	Value	Unit
Power Dissipation	P _d	500 ¹⁾	mW
Operating junction temperature	T _j	200	°C
Storage temperature range	T _s	-65—+200	°C

1) Valid provided that leads are kept at ambient temperature at a distance of 8mm from case

ELECTRICAL CHARACTERISTICS (at T_A=25°C unless otherwise noted)

TYPE	VZ(V)				ZZT(Ω)		ZZK(Ω)		IR(μA)	
	Nom.	MIN	MAX	Iz(mA)	MAX	IzT(mA)	MAX	IzK(mA)	MAX	VR(V)
1N5221B	2.4	2.280	2.520	20.0	30.0	20.0	1200	0.25	100.0	1.0
1N5222B	2.5	2.375	2.625	20.0	30.0	20.0	1250	0.25	100.0	1.0
1N5223B	2.7	2.565	2.835	20.0	30.0	20.0	1300	0.25	75	1.0
1N5224B	2.8	2.660	2.940	20.0	30.0	20.0	1400	0.25	75	1.0
1N5225B	3	2.850	3.150	20.0	29.0	20.0	1600	0.25	50	1.0
1N5226B	3.3	3.135	3.465	20.0	28.0	20.0	1600	0.25	25	1.0
1N5227B	3.6	3.420	3.780	20.0	24.0	20.0	1700	0.25	15	1.0
1N5228B	3.9	3.705	4.095	20.0	23.0	20.0	1900	0.25	10	1.0
1N5229B	4.3	4.085	4.515	20.0	22.0	20.0	2000	0.25	5.0	1.0
1N5230B	4.7	4.465	4.935	20.0	19.0	20.0	1900	0.25	5.0	2.0
1N5231B	5.1	4.845	5.355	20.0	17.0	20.0	1600	0.25	5.0	2.0
1N5232B	5.6	5.320	5.880	20.0	11.0	20.0	1600	0.25	5.0	3.0
1N5233B	6	5.700	6.300	20.0	7.0	20.0	1600	0.25	5.0	3.5
1N5234B	6.2	5.890	6.510	20.0	7.0	20.0	1000	0.25	5.0	4.0
1N5235B	6.8	6.460	7.140	20.0	5.0	20.0	750	0.25	3.0	5.0
1N5236B	7.5	7.125	7.875	20.0	6.0	20.0	500	0.25	3	6.0
1N5237B	8.2	7.790	8.610	20.0	8.0	20.0	500	0.25	3	6.5
1N5238B	8.7	8.265	9.135	20.0	8.0	20.0	600	0.25	3	6.5
1N5239B	9.1	8.645	9.555	20.0	10.0	20.0	600	0.25	3	7.0
1N5240B	10	9.500	10.500	20.0	17.0	20.0	600	0.25	3	8.0
1N5241B	11	10.450	11.550	20.0	22.0	20.0	600	0.25	2	8.4
1N5242B	12	11.400	12.600	20.0	30.0	20.0	600	0.25	1	9.1
1N5243B	13	12.350	13.650	9.5	13.0	9.5	600	0.25	0.5	9.9
1N5244B	14	13.300	14.700	9.0	15.0	9.0	600	0.25	0.1	10.0
1N5245B	15	14.250	15.750	8.5	16.0	8.5	600	0.25	0.1	11.0
1N5246B	16	15.200	16.800	7.8	17.0	7.8	600	0.25	0.1	12.0
1N5247B	17	16.150	17.850	7.4	19.0	7.4	600	0.25	0.1	13.0
1N5248B	18	17.100	18.900	7.0	21.0	7.0	600	0.25	0.1	14.0
1N5249B	19	18.050	19.950	6.6	23.0	6.6	600	0.25	0.1	14.0
1N5250B	20	19.000	21.000	6.2	25.0	6.2	600	0.25	0.1	15.0

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

TYPE	VZ(V)				ZZT(Ω)		ZZK(Ω)		IR(μA)	
	Nom.	MIN	MAX	IZ(mA)	MAX	IZT(mA)	MAX	IZK(mA)	MAX	VR(V)
1N5251B	22	20.900	23.100	5.6	29.0	5.6	600	0.25	0.1	17.0
1N5252B	24	22.800	25.200	5.2	33.0	5.2	600	0.25	0.1	18.0
1N5253B	25	23.750	26.250	5.0	35.0	5.0	600	0.25	0.1	19.0
1N5254B	27	25.650	28.350	4.6	41.0	4.6	600	0.25	0.1	21.0
1N5255B	28	26.600	29.400	4.5	44.0	4.5	600	0.25	0.1	21.0
1N5256B	30	28.500	31.500	4.2	49.0	4.2	600	0.25	0.1	23.0
1N5257B	33	31.350	34.650	3.8	58.0	3.8	700	0.25	0.1	25.0
1N5258B	36	34.200	37.800	3.4	70.0	3.4	700	0.25	0.1	27.0
1N5259B	39	37.050	40.950	3.2	80.0	3.2	800	0.25	0.1	30.0
1N5260B	43	40.850	45.150	3.0	93.0	3.0	900	0.25	0.1	33.0
1N5261B	47	44.650	49.350	2.7	105.0	2.7	100	0.25	0.1	36.0
1N5262B	51	48.450	53.550	2.5	125.0	2.5	1100	0.25	0.1	39.0
1N5263B	56	53.200	58.800	2.2	150.0	2.2	1300	0.25	0.1	43.0
1N5264B	60	57.000	63.000	2.1	170	2.1	1400	0.25	0.1	46.0
1N5265B	62	58.900	65.100	2.0	185.0	2.0	1400	0.25	0.1	47.0
1N5266B	68	64.600	71.400	1.8	230.0	1.8	1600	0.25	0.1	52.0
1N5267B	75	71.250	78.750	1.7	270.0	1.7	1700	0.25	0.1	56

- Notes:**
- 1) The Zener Impedance is derived from the 60 Hz AC voltage which results when an AC current having an RMS value equal to 10% of the Zener Current (IZT or IZK) is superimposed on IZT or IZK. Zener Impedance is measured at two points to insure a sharp knee on the breakdown curve and to eliminate unstable units.
 - 2) Standard Zener voltage tolerance is $\pm 20\%$. Add suffix "A" for $\pm 10\%$ Tolerance, suffix "B" for $\pm 5\%$ tolerance, suffix "C" for $\pm 2\%$ tolerance, Other tolerance, non standard and higher Zener voltages are upon request.
 - 3) Valid provided that leads at a distance of 8 mm from case are kept at ambient temperature.
 - 4) Measured under thermal equilibrium and DC test conditions.
 - 5) Tested with pulses $t_p = 20$ ms.
 - 6) $V_F(\text{Max}) = 1.10\text{V} @ I_F = 200\text{mA}$

RATINGS AND CHARACTERISTIC CURVES 1N52xxB Series

Admissible power dissipation versus ambient temperature

