

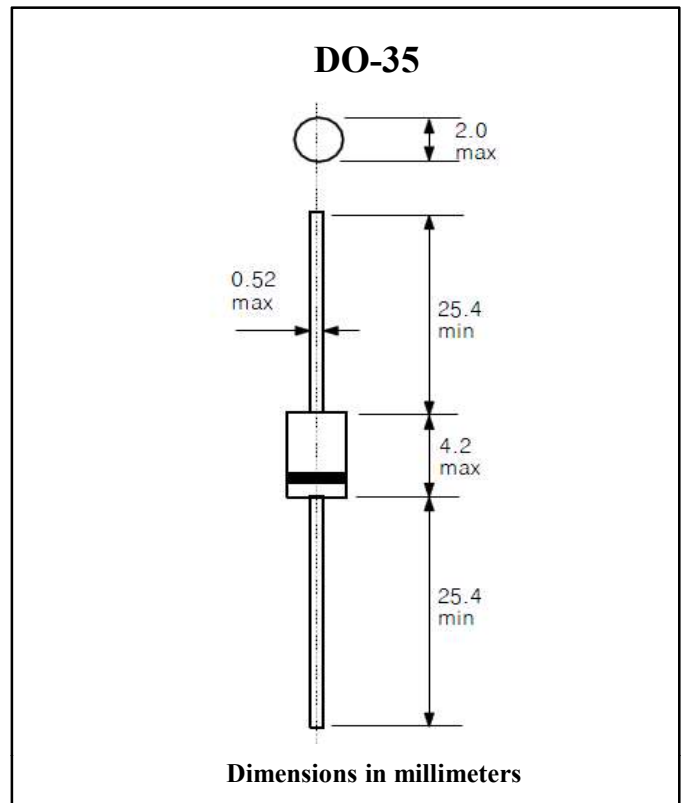
0.5W Glass Seal Zener Diode

Features

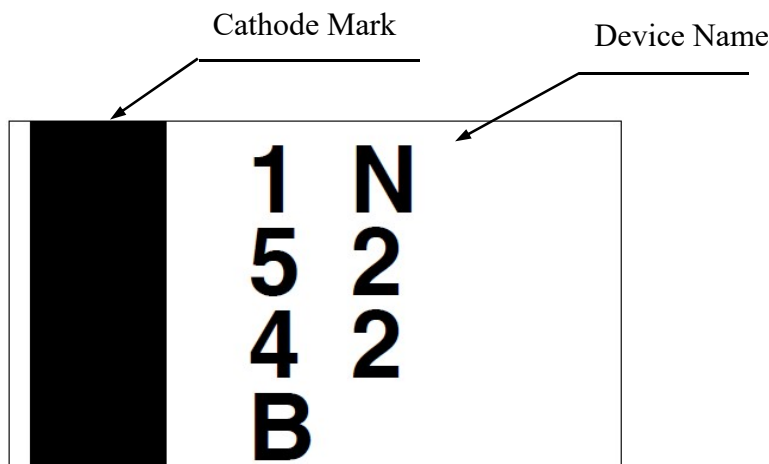
- Small, light and high-quality diode with glass-seals structure
- Standard Zener voltage tolerance is $\pm 5\%$ with a "B" suffix, and $\pm 10\%$ with a "A" suffix
- Other tolerances, non standard and higher Zener voltages upon request

Applications

- Constant-voltage circuit
- Surge absorbing circuit
- Voltage shift circuit



Marking



Maximum Ratings ($T_a=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Rated Value	Unit	Remark
Power Dissipation	P	0.5	W	
Maximum Junction Temperature	T_J	175	$^\circ\text{C}$	
Storage Temperature Range	T_{STG}	-65 to +175	$^\circ\text{C}$	



Electrical Characteristics (Ta=25°C unless otherwise noted)

Type No.	Zener Voltage Range 1)		Maximum Zener Impedance 1)			Reverse Leakage Current		Temp Coefficient of Zener Voltage
	Vznom 3)	Izt	rzit and rzik at Izk			IR 2) at VR		T _{KVZ}
	V	mA	Ω	Ω	mA	uA	V	%/K
1N5221B	2.4	20	< 30	< 1200	0.25	< 100	1.0	< -0.085
1M5222B	2.5	20	< 30	< 1250	0.25	< 100	1.0	< -0.085
1N5223B	2.7	20	< 30	< 1300	0.25	< 75	1.0	< -0.080
1N5224B	2.8	20	< 30	< 1400	0.25	< 75	1.0	< -0.080
1N5225B	3.0	20	< 29	< 1600	0.25	< 50	1.0	< -0.075
1N5226B	3.3	20	< 28	< 1600	0.25	< 25	1.0	< -0.070
1N5227B	3.6	20	< 24	< 1700	0.25	< 15	1.0	< -0.065
1N5228B	3.9	20	< 23	< 1900	0.25	< 10	1.0	< -0.060
1N5229B	4.3	20	< 22	< 2000	0.25	< 5	1.0	< +0.055
1N5230B	4.7	20	< 19	< 1900	0.25	< 5	2.0	< +0.030
1N5231B	5.1	20	< 17	< 1600	0.25	< 5	2.0	< +0.030
1N5232B	5.6	20	< 11	< 1600	0.25	< 5	3.0	< +0.038
1N5233B	6.0	20	< 7	< 1600	0.25	< 5	3.5	< +0.038
1N5234B	6.2	20	< 7	< 1000	0.25	< 5	4.0	< +0.045
1N5235B	6.8	20	< 5	< 750	0.25	< 3	5.0	< +0.050
1N5236B	7.5	20	< 6	< 500	0.25	< 3	6.0	< +0.058
1N5237B	8.2	20	< 8	< 500	0.25	< 3	6.5	< +0.062
1N5238B	8.7	20	< 8	< 600	0.25	< 3	6.5	< +0.065
1N5239B	9.1	20	< 10	< 600	0.25	< 3	7.0	< +0.068
1N5240B	10	20	< 17	< 600	0.25	< 3	8.0	< +0.075
1N5241B	11	20	< 22	< 600	0.25	< 2	8.4	< +0.076
1N5242B	12	20	< 30	< 600	0.25	< 1	9.1	< +0.077
1N5243B	13	9.5	< 13	< 600	0.25	< 0.5	9.9	< +0.079
1N5244B	14	9.0	< 15	< 600	0.25	< 0.1	10	< +0.082
1N5245B	15	8.5	< 16	< 600	0.25	< 0.1	11	< +0.082
1N5246B	16	7.8	< 17	< 600	0.25	< 0.1	12	< +0.083
1N5247B	17	7.4	< 19	< 600	0.25	< 0.1	13	< +0.084
1N5248B	18	7.0	< 21	< 600	0.25	< 0.1	14	< +0.085
1N5249B	19	6.6	< 23	< 600	0.25	< 0.1	14	< +0.086
1N5250B	20	6.2	< 25	< 600	0.25	< 0.1	15	< +0.086
1N5251B	22	5.6	< 29	< 600	0.25	< 0.1	17	< +0.087
1N5252B	24	5.2	< 33	< 600	0.25	< 0.1	18	< +0.088
1N5253B	25	5.0	< 35	< 600	0.25	< 0.1	19	< +0.089
1N5254B	27	4.6	< 41	< 600	0.25	< 0.1	21	< +0.090

NOTES:

- (1) The Zener Impedance is derived from the 60Hz 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 point to insure a sharp knee on breakdown curve and to eliminate unstable units.
- (2) Vaild provided that leads at a distance of 8mm from case are kept at ambient temperature.
- (3) Measured under thermal quilibrium and DC test conditions.



Electrical Characteristics (Ta=25°C unless otherwise noted)

Type No.	Zener Voltage Range 1)		Maximum Zener Impedance 1)			Reverse Leakage Current		Temp Coefficient of Zener Voltage
	V _{znom} 3)	I _{zt}	r _{z1t} and r _{z1k} at I _{zk}			I _R 2) at V _R		T _{KVZ}
	V	mA	Ω	Ω	mA	uA	V	%/K
1N5255B	28	4.5	< 44	< 600	0.25	< 0.1	21	< +0.091
1N5256B	30	4.2	< 49	< 600	0.25	< 0.1	23	< +0.091
1N5257B	33	3.8	< 58	< 700	0.25	< 0.1	25	< +0.092
1N5258B	36	3.4	< 70	< 700	0.25	< 0.1	27	< +0.093
1N5259B	39	3.2	< 80	< 800	0.25	< 0.1	30	< +0.094
1N5260B	43	3.0	< 93	< 900	0.25	< 0.1	33	< +0.095
1N5261B	47	2.7	< 105	< 1000	0.25	< 0.1	36	< +0.095
1N5262B	51	2.5	< 125	< 1100	0.25	< 0.1	39	< +0.096
1N5263B	56	2.2	< 150	< 1300	0.25	< 0.1	43	< +0.096
1N5264B	60	2.1	< 170	< 1400	0.25	< 0.1	46	< +0.097
1N5265B	62	2.0	< 185	< 1400	0.25	< 0.1	47	< +0.097
1N5266B	68	1.8	< 230	< 1600	0.25	< 0.1	52	< +0.097
1N5267B	75	1.7	< 270	< 1700	0.25	< 0.1	56	< +0.098
1N5268B	82	1.5	< 330	< 2000	0.25	< 0.1	62	< +0.098
1N5269B	87	1.4	< 370	< 2200	0.25	< 0.1	68	< +0.099
1N5270B	91	1.4	< 400	< 2300	0.25	< 0.1	69	< +0.099
1N5271B	100	1.3	< 500	-	-	< 0.1	75	< +0.100
1N5272B	110	1.2	< 700	-	-	< 0.1	83	< +0.100
1N5273B	120	1.0	< 950	-	-	< 0.1	90	< +0.100
1N5274B	130	0.95	< 1100	-	-	< 0.1	98	< +0.110
1N5275B	140	0.90	< 1300	-	-	< 0.1	105	< +0.110
1N5276B	150	0.85	< 1500	-	-	< 0.1	113	< +0.110
1N5277B	160	0.80	< 1700	-	-	< 0.1	120	< +0.115
1N5278B	170	0.74	< 1900	-	-	< 0.1	127	< +0.115
1N5279B	180	0.68	< 2200	-	-	< 0.1	135	< +0.120
1N5280B	190	0.66	< 2400	-	-	< 0.1	142	< +0.120
1N5281B	200	0.65	< 2500	-	-	< 0.1	150	< +0.120

NOTES:

- (1) The Zener Impedance is derived from the 60Hz AC voltage Which results When an AC current having an RMS value equal to 10% of the Zener current(I_{ZT} or I_{ZK})is superimposed on I_{ZT} or I_{ZK} Zener Impedance is measured at two point to insure a sharp knee on breakdown curve and to eliminate unstable units.
- (2) Vaild provided that leads at a distance of 8mm from case are kept at ambient temperature.
- (3) Measured under thermal equilibrium and DC test conditions.



Rating and Characteristic Curves

Admissible power dissipation versus ambient temperature

Valid provided that leads at a distance of 10mm from case are kept at ambient temperature

