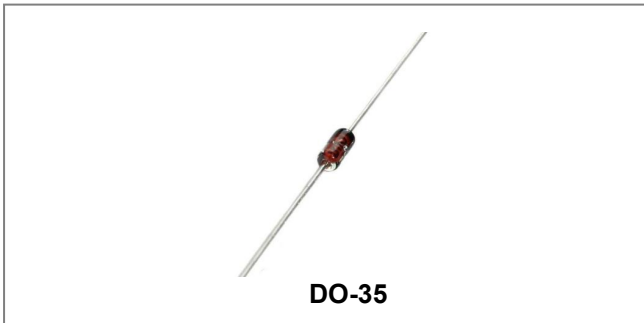


## 1N52-Series Zener Diode



### Features

- Low Reverse Leakage
- Low Zener Impedance
- Power Dissipation of 500mW
- High Stability and High Reliability
- This is a Pb – Free Device
- All SMC parts are traceable to the wafer lot
- Additional testing can be offered upon request

### Circuit Diagram



### Mechanical Data

- Case: DO-35 Glass Case
- Polarity: Color band denotes cathode end
- Mounting Position: Any

### Maximum Ratings@T<sub>A</sub>=25°C unless otherwise specified

Parameter	Symbol	Value	Units
Power Dissipation (Note 1)	P <sub>D</sub>	500	mW
Forward Voltage @ I <sub>F</sub> = 200mA	V <sub>F</sub>	1.1	V
Typical Thermal resistance junction to Ambient Air (Note 1)	R <sub>θJA</sub>	0.3	K/mW
Operating Junction and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 to 200	°C

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

### Ordering Information

Device	Package	Shipping
1N5221B-1N5281B	DO-35 (Pb-Free)	2500pcs / tape

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our tape and reel packaging specification.

### Marking Diagram



1N5252B = Part Name

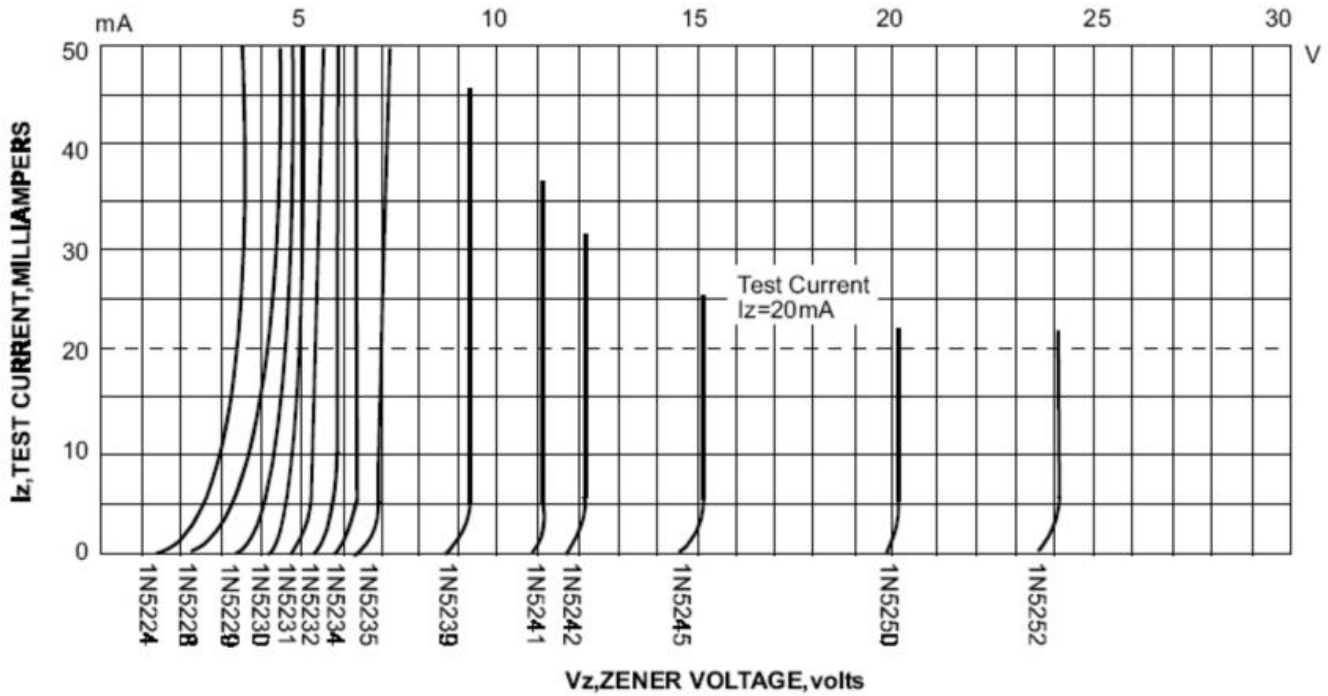
**Electrical Characteristics @ $T_A=25^{\circ}\text{C}$  unless otherwise specified**

Part No.	Nominal Zener Voltage $V_z @ I_{zT}$ Volts	Test Current $I_{zT}$ mA	Max. Zener Impedance		Max. Reverse Leakage Current			Max.ZenerVoltage Temp. Coeff
			$Z_{zT} @ I_{zT}$ Ohms	$Z_{zK}$ @ $I_{zK}=0.25\text{mA}$ Ohms	$I_R$ $\mu\text{A}$	@ $V_R$ Volts		
						A	B,C&D	
1N5221B	2.4	20	30	1200	100	0.95	1.0	-0.085
1N5222B	2.5	20	30	1250	100	0.95	1.0	-0.085
1N5223B	2.7	20	30	1300	75	0.95	1.0	-0.080
1N5224B	2.8	20	30	1400	75	0.95	1.0	-0.080
1N5225B	3.0	20	29	1600	50	0.95	1.0	-0.075
1N5226B	3.3	20	28	1600	25	0.95	1.0	-0.070
1N5227B	3.6	20	24	1700	15	0.95	1.0	-0.065
1N5228B	3.9	20	23	1900	10	0.95	1.0	-0.060
1N5229B	4.3	20	22	2000	5.0	0.95	1.0	$\pm 0.055$
1N5230B	4.7	20	19	1900	5.0	1.9	2.0	$\pm 0.030$
1N5231B	5.1	20	17	1600	5.0	1.9	2.0	$\pm 0.030$
1N5232B	5.6	20	11	1600	5.0	2.9	3.0	+0.038
1N5233B	6.0	20	7.0	1600	5.0	3.3	3.5	+0.038
1N5234B	6.2	20	7.0	1000	5.0	3.8	4.0	+0.045
1N5235B	6.8	20	5.0	750	3.0	4.8	5.0	+0.050
1N5236B	7.5	20	6.0	500	3.0	5.7	6.0	+0.058
1N5237B	8.2	20	8.0	500	3.0	6.2	6.5	+0.062
1N5238B	8.7	20	8.0	600	3.0	6.2	6.5	+0.065
1N5239B	9.1	20	10	600	3.0	6.7	7.0	+0.068
1N5240B	10	20	17	600	3.0	7.6	8.0	+0.075
1N5241B	11	20	22	600	2.0	8.0	8.4	+0.076
1N5242B	12	20	30	600	1.0	8.7	9.1	+0.077
1N5243B	13	9.5	13	600	0.5	9.4	9.9	+0.079
1N5244B	14	9.0	15	600	0.1	9.5	10	+0.082
1N5245B	15	8.5	16	600	0.1	10.5	11	+0.082
1N5246B	16	7.8	17	600	0.1	11.4	12	+0.083
1N5247B	17	7.4	19	600	0.1	12.4	13	+0.084
1N5248B	18	7.0	21	600	0.1	13.3	14	+0.085
1N5249B	19	6.6	23	600	0.1	13.3	14	+0.086
1N5259B	20	6.2	25	600	0.1	14.3	15	+0.086
1N5251B	22	5.6	29	600	0.1	16.2	17	+0.087
1N5252B	24	5.2	33	600	0.1	17.1	18	+0.088
1N5253B	25	5.0	35	600	0.1	18.1	19	+0.089
1N5254B	27	4.6	41	600	0.1	20	21	+0.090
1N5255B	28	4.5	44	600	0.1	20	21	+0.091
1N5256B	30	4.2	49	600	0.1	22	23	+0.091
1N5257B	33	3.8	58	700	0.1	24	25	+0.092
1N5258B	36	3.4	70	700	0.1	26	27	+0.093
1N5259B	39	3.2	80	800	0.1	29	30	+0.094
1N5260B	43	3.0	93	900	0.1	31	33	+0.095
1N5261B	47	2.7	105	1000	0.1	34	36	+0.095
1N5262B	51	2.5	125	1100	0.1	37	39	+0.096
1N5263B	56	2.2	150	1300	0.1	41	43	+0.096
1N5264B	60	2.1	170	1400	0.1	44	46	+0.097
1N5265B	62	2.0	185	1400	0.1	45	47	+0.097
1N5266B	68	1.8	230	1600	0.1	49	52	+0.097
1N5267B	75	1.7	270	1700	0.1	53	56	+0.097
1N5268B	82	1.5	330	2000	0.1	59	62	+0.098
1N5269B	87	1.4	370	2200	0.1	65	68	+0.099
1N5270B	91	1.4	400	2300	0.1	66	69	+0.099
1N5271B	100	1.3	500	2600	0.1	72	76	+0.110
1N5272B	110	1.1	750	3000	0.1	80	84	+0.110
1N5273B	120	1.0	900	4000	0.1	86	91	+0.110
1N5274B	130	0.95	1100	4500	0.1	94	99	+0.110
1N5275B	140	0.90	1300	4500	0.1	101	106	+0.110
1N5276B	150	0.85	1500	5000	0.1	108	114	+0.110
1N5277B	160	0.80	1700	5500	0.1	116	122	+0.110
1N5278B	170	0.74	1900	5500	0.1	123	129	+0.110
1N5279B	180	0.68	2200	6000	0.1	130	137	+0.110
1N5280B	190	0.68	2400	6500	0.1	137	144	+0.110
1N5281B	200	0.65	2500	7000	0.1	144	152	+0.110

Note:1. SUFFIX "B" Indicates  $\pm 5\%$  Tolerance.  
2. NO SUFFIX "B" Indicates  $\pm 10\%$  Tolerance.

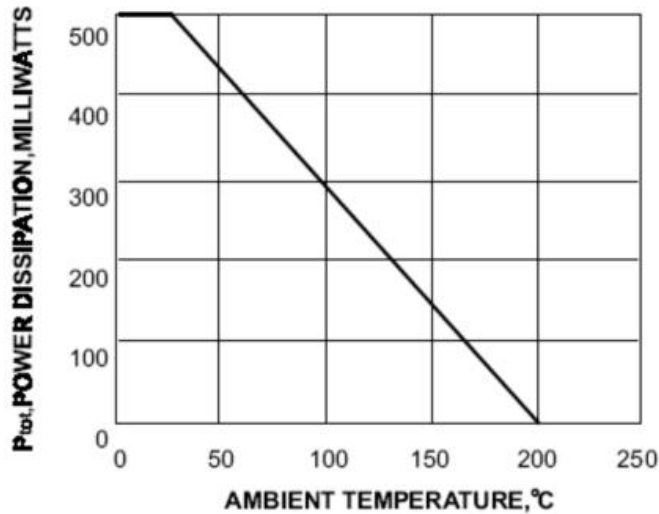
**Ratings and Characteristics Curves**

**Breakdown characteristics**

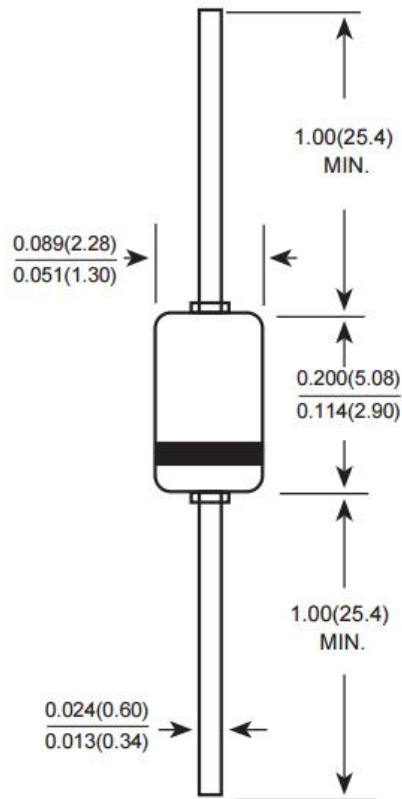


**Admissible power dissipation versus ambient temperature**

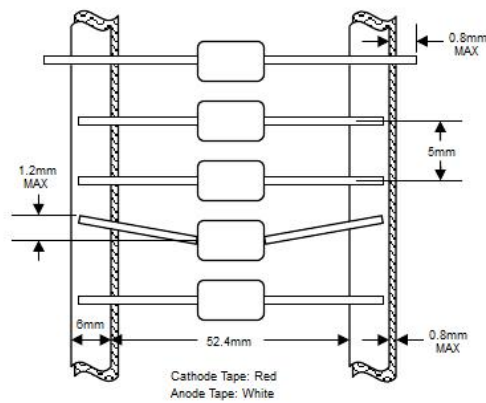
Valid provided that leads are kept at ambient temperature at a distance of 10mm from case



**Mechanical Dimensions DO-35(Inches/Millimeters)**



**Carrier Tape Specification DO-35**



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