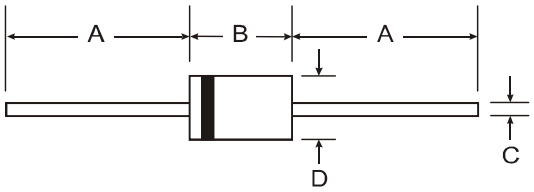
NOT RECOMMENDED FOR NEW DESIGN, USE MMSZ52xxB

1N5221B - 1N5267B

500mW EPITAXIAL ZENER DIODE

Features

- 500mW Power Dissipation
- High Stability
- Surface Mount Equivalents Available
- Hermetic Package
- V_Z - Tolerance ±5%
- **Lead Free Finish, RoHS Compliant (Note 2)**



DO-35		
Dim	**Min**	**Max**
A	25.40	—
B	—	4.00
C	—	0.60
D	—	2.00
All Dimensions in mm		

Mechanical Data

- Case: DO-35
- Case Material: Glass
- Moisture Sensitivity: Level 1 per J-STD-020
- Leads: Solderable per MIL-STD-202, Method 208
- Terminals: Finish - Sn96.5Ag3.5. Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Marking: Type Number
- Weight: 0.13 grams (approximate)

Maximum Ratings and Electrical Characteristics @T_A = 25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Power Dissipation (Note 1)	P_D	500	mW
Thermal Resistance, Junction to Ambient Air (Note 1)	$R_{\theta JA}$	300	°C/W
Forward Voltage @ I_F = 200mA	V_F	1.1	V
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to +200	°C

Notes: 1. Valid provided that leads are kept at TL ≤75°C with lead length = 9.5mm (3/8") from case; derate above 75°C.
2. EU Directive 2002/95/EC (RoHS). All applicable RoHS exemptions applied, see EU Directive 2002/95/EC Annex Notes.

Electrical Characteristics @T_A = 25°C unless otherwise specified — Table 1

Type Number	Zener Voltage Range (Note 3) V_Z @ I_{ZT}			Test Current I_{ZT}	Maximum Zener Impedance Z_{ZT} @ I_{ZT}	Maximum Zener Impedance Z_{ZK} @ I_{ZK} = 0.25mA	Maximum Reverse Current I_R	Maximum Reverse Current @V_R	Maximum Temperature Coefficient @ I_{ZT}
	Nom (V)	Min (V)	Max (V)	mA	Ω	Ω	μA	V	%/°C
1N5221B	2.4	2.28	2.52	20	30	1200	100	1.0	-0.085
1N5222B	2.5	2.38	2.63	20	30	1250	100	1.0	-0.085
1N5223B	2.7	2.57	2.84	20	30	1300	75	1.0	-0.080
1N5224B	2.8	2.66	2.94	20	30	1400	75	1.0	-0.080
1N5225B	3.0	2.85	3.15	20	29	1600	50	1.0	-0.075
1N5226B	3.3	3.14	3.47	20	28	1600	25	1.0	-0.070
1N5227B	3.6	3.42	3.78	20	24	1700	15	1.0	-0.065
1N5228B	3.9	3.71	4.10	20	23	1900	10	1.0	-0.060
1N5229B	4.3	4.09	4.52	20	22	2000	5.0	1.0	+0.055
1N5230B	4.7	4.47	4.94	20	19	1900	5.0	2.0	+0.030
1N5231B	5.1	4.85	5.36	20	17	1600	5.0	2.0	+0.030
1N5232B	5.6	5.32	5.88	20	11	1600	5.0	3.0	+0.038
1N5233B	6.0	5.70	6.30	20	7.0	1600	5.0	3.5	+0.038
1N5234B	6.2	5.89	6.51	20	7.0	1000	5.0	4.0	+0.045
1N5235B	6.8	6.46	7.14	20	5.0	750	3.0	5.0	+0.050
1N5236B	7.5	7.13	7.88	20	6.0	500	3.0	6.0	+0.058
1N5237B	8.2	7.79	8.61	20	8.0	500	3.0	6.5	+0.062
1N5238B	8.7	8.27	9.14	20	8.0	600	3.0	6.5	+0.065
1N5239B	9.1	8.65	9.56	20	10	600	3.0	7.0	+0.068
1N5240B	10	9.50	10.50	20	17	600	3.0	8.0	+0.075
1N5241B	11	10.45	11.55	20	22	600	2.0	8.4	+0.076
1N5242B	12	11.40	12.60	20	30	600	1.0	9.1	+0.077
1N5243B	13	12.35	13.65	9.5	13	600	0.5	9.9	+0.079
1N5244B	14	13.30	14.70	9.0	15	600	0.1	10	+0.082
1N5245B	15	14.25	15.75	8.5	16	600	0.1	11	+0.082
1N5246B	16	15.20	16.80	7.8	17	600	0.1	12	+0.083
1N5247B	17	16.15	17.85	7.4	19	600	0.1	13	+0.084
1N5248B	18	17.10	18.90	7.0	21	600	0.1	14	+0.085
1N5249B	19	18.05	19.95	6.6	23	600	0.1	14	+0.086
1N5250B	20	19.00	21.00	6.2	25	600	0.1	15	+0.086
1N5251B	22	20.90	23.10	5.6	29	600	0.1	17	+0.087
1N5252B	24	22.80	25.20	5.2	33	600	0.1	18	+0.087
1N5253B	25	23.75	26.25	5.0	35	600	0.1	19	+0.089
1N5254B	27	25.65	28.35	4.6	41	600	0.1	21	+0.090
1N5255B	28	26.60	29.40	4.5	44	600	0.1	21	+0.091
1N5256B	30	28.50	31.50	4.2	49	600	0.1	23	+0.091
1N5257B	33	31.35	34.65	3.8	58	700	0.1	25	+0.092
1N5258B	36	34.20	37.80	3.4	70	700	0.1	27	+0.093
1N5259B	39	37.05	40.95	3.2	80	800	0.1	30	+0.094
1N5260B	43	40.85	45.15	3.0	93	900	0.1	33	+0.095
1N5261B	47	44.65	49.35	2.7	105	1000	0.1	36	+0.095
1N5262B	51	48.45	53.55	2.5	125	1100	0.1	39	+0.096
1N5263B	56	53.20	58.80	2.2	150	1300	0.1	43	+0.096
1N5264B	60	57.00	63.00	2.1	170	1400	0.1	46	+0.097
1N5265B	62	58.90	65.10	2.0	185	1400	0.1	47	+0.097
1N5266B	68	64.60	71.40	1.8	230	1600	0.1	52	+0.097
1N5267B	75	71.25	78.75	1.7	270	1700	0.1	56	+0.098

Notes: 3. Based on dc measurement at thermal equilibrium; lead length = 9.5mm (3/8"); thermal resistance of heat sink = 30°C/W.

Ordering Information (Notes 4 & 5)

Device	Packaging	Shipping
(Type Number)-A	DO-35	5K/Ammo Pack
(Type Number)-T	DO-35	10K/Tape & Reel

Notes: 4. Add "-A" or "-T" to the appropriate type number in Table 1. Example: 6.2V Zener = 1N5234B-A for ammo pack.
5. For packaging details, visit our website at http://www.diodes.com/datasheets/ap02008.pdf.