

## 1N5221B - 1N5267B

$V_Z$  : 2.4 - 75V

$P_D$  : 500mW

### FEATURES :

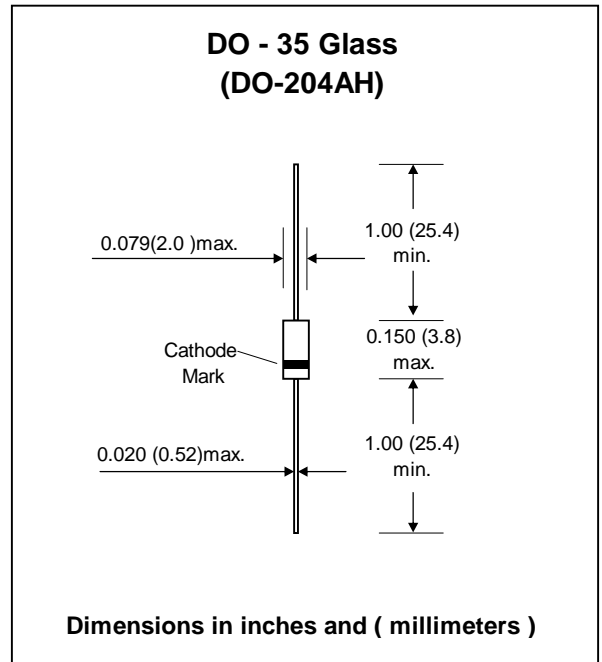
- Silicon planar power zener diodes.
- Standard zener voltage tolerance is  $\pm 5\%$ .
- Other tolerances are available upon request.
- These diodes are also available in MiniMELF case with the type designation ZMM5221B ... ZMM5267B
- Pb / RoHS Free

### MECHANICAL DATA :

**Case:** DO-35 Glass Case

**Weight:** approx. 0.13g

## ZENER DIODES



### Maximum Ratings and Thermal Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.

Parameter	Symbol	Value	Unit
Zener Current see Table "Characteristics"			
Maximum Forward Voltage at $I_F = 200$ mA.	$V_F$	1.1	V
Power Dissipation at $T_a = 75$ °C	$P_D$	500 <sup>(1)</sup>	mW
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	300 <sup>(1)</sup>	°C/W
Junction temperature	$T_J$	175	°C
Storage temperature range	$T_S$	-65 to + 175	°C

**Note:**

(1) Valid provided that leads at a distance of 3/8" from case are kept at ambient temperature.

## Electrical Characteristics (Ta = 25°C)

Type	Nominal Zener Voltage Vz @ IZT	Test Current IZT	Maximum Zener Impedance <sup>(1)</sup>		Maximum Reverse Leakage Current		Typical Temperature Coefficient $\alpha_{VZ}(\%/^{\circ}\text{C})$	Maximum Regulator Current <sup>(2)</sup> I <sub>ZM</sub>
			ZzT @ IZT	ZzK at I <sub>ZK</sub> = 0.25mA	I <sub>R</sub> @	V <sub>R</sub>		
	(V)	(mA)	( $\Omega$ )	( $\Omega$ )	( $\mu\text{A}$ )	(V)	(mA)	
1N5221B	2.4	20	30	1200	100	1.0	-0.085	190
1N5222B	2.5	20	30	1250	100	1.0	-0.085	182
1N5223B	2.7	20	30	1300	75	1.0	-0.080	168
1N5224B	2.8	20	30	1400	75	1.0	-0.080	162
1N5225B	3.0	20	29	1600	50	1.0	-0.075	152
1N5226B	3.3	20	28	1600	25	1.0	-0.070	138
1N5227B	3.6	20	24	1700	15	1.0	-0.065	126
1N5228B	3.9	20	23	1900	10	1.0	-0.060	115
1N5229B	4.3	20	22	2000	5.0	1.0	$\pm 0.055$	106
1N5230B	4.7	20	19	1900	5.0	2.0	$\pm 0.030$	97
1N5231B	5.1	20	17	1600	5.0	2.0	$\pm 0.030$	89
1N5232B	5.6	20	11	1600	5.0	3.0	+0.038	81
1N5233B	6.0	20	7	1600	5.0	3.5	+0.038	76
1N5234B	6.2	20	7	1000	5.0	4.0	+0.045	73
1N5235B	6.8	20	5	750	3.0	5.0	+0.050	67
1N5236B	7.5	20	6	500	3.0	6.0	+0.058	61
1N5237B	8.2	20	8	500	3.0	6.5	+0.062	55
1N5238B	8.7	20	8	600	3.0	6.5	+0.065	52
1N5239B	9.1	20	10	600	3.0	7.0	+0.068	50
1N5240B	10	20	17	600	3.0	8.0	+0.075	45
1N5241B	11	20	22	600	2.0	8.4	+0.076	41
1N5242B	12	20	30	600	1.0	9.1	+0.077	38
1N5243B	13	9.5	13	600	0.5	9.9	+0.079	35
1N5244B	14	9.0	15	600	0.1	10.0	+0.082	32
1N5245B	15	8.5	16	600	0.1	11	+0.082	30
1N5246B	16	7.8	17	600	0.1	12	+0.083	28
1N5247B	17	7.4	19	600	0.1	13	+0.084	27
1N5248B	18	7.0	21	600	0.1	14	+0.085	25
1N5249B	19	6.6	23	600	0.1	14	+0.086	24
1N5250B	20	6.2	25	600	0.1	15	+0.086	23
1N5251B	22	5.6	29	600	0.1	17	+0.087	21
1N5252B	24	5.2	33	600	0.1	18	+0.088	19.1
1N5253B	25	5	35	600	0.1	19	+0.089	18.2
1N5254B	27	4.6	41	600	0.1	21	+0.090	16.8
1N5255B	28	4.5	44	600	0.1	21	+0.091	16.2
1N5256B	30	4.2	49	600	0.1	23	+0.091	15.1
1N5257B	33	3.8	58	700	0.1	25	+0.092	13.8
1N5258B	36	3.4	70	700	0.1	27	+0.093	12.6
1N5259B	39	3.2	80	800	0.1	30	+0.094	11.6
1N5260B	43	3.0	93	900	0.1	33	+0.095	10.6
1N5261B	47	2.7	105	1000	0.1	36	+0.095	9.7
1N5262B	51	2.5	125	1100	0.1	39	+0.096	8.9
1N5263B	56	2.2	150	1300	0.1	43	+0.096	-
1N5264B	60	2.1	170	1400	0.1	46	+0.097	-
1N5265B	62	2.0	185	1400	0.1	47	+0.097	-
1N5266B	68	1.8	230	1600	0.1	52	+0.097	-
1N5267B	75	1.7	270	1700	0.1	56	+0.098	-

### Notes :

- (1) The Zener impedance is derived from the 1 kHz AC voltage which results when an AC current having an RMS value equal to 10% of the Zener current (I<sub>ZT</sub> or I<sub>ZK</sub>) is superimposed on I<sub>ZT</sub> or I<sub>ZK</sub>. Zener impedance is measured at two points to insure a sharp knee on the breakdown curve and to eliminate unstable units
- (2) Valid provided that leads at a distance of 10 mm from case are kept at ambient temperature
- (3) Standard Zener voltage tolerance is  $\pm 5\%$  tolerance.