ZENER DIODES

POWER DISSIPATION: 500 mW

FEATURES

◇ Silicon planar power zener diodes

◇ Standard Zener voltage tolerance is ±5%. With a "B" suffix. Other tolerances are available upon request.

MECHANICAL DATA

◇ Case:DO-35, Glass Case

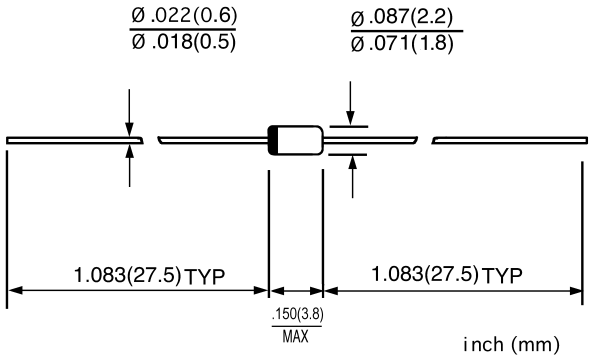
◇ Terminals: Solderable per MIL-STD-202, Method 208

◇ Polarity: Cathode Band

◇ Marking: Type Number

◇ Approx. Weight: 0.13 grams.

DO-35(GLASS)



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.

Single phase,half wave,60 Hz,resistive or inductive load. For capacitive load,derate by 20%.

	SYMBOL	VALUE	UNIT
Zener current (see Table "Characteristics")			
Power dissipation at T_{amb}=25℃	P_{tot}	500[1)]	mW
Junction temperature	T_J	175	℃
Storage temperature range	T_s	-55---+175	℃

	SYMBOL	MIN	TYP	MAX	UNIT
Thermal resistance junction to ambient	$R_{\theta JA}$	—	—	300[1)]	℃/W
Forward voltage at I_F=200mA	V_F	—	—	1.2	V

NOTES: (1) Valid provided that leads at a distance of 10 mm from case are kept at ambient temperature.

ELECTRICAL CHARACTERISTICS (T_A=25°C)

Type	Nominal Zener Voltage[1)]	Test Current	Maximum Dynamic Impedance[1)]		Typical Temperature of Coeffizient	Maximum Reverse Leakage Current	
	V_Z	I_{ZT}	$Z_{ZT}@I_{ZT}$	$Z_{ZK}@$ I_{ZK}=0.25mA	$\alpha V_Z@I_{ZT}$	I_{RM}	V_R
	V	mA	Ω	Ω	%/°C	μ A	V
1N5221B	2.4	20	30	1200	-0.085	100	1.0
1N5222B	2.5	20	30	1250	-0.085	100	1.0
1N5223B	2.7	20	30	1300	-0.080	75	1.0
1N5224B	2.8	20	30	1400	-0.080	75	1.0
1N5225B	3.0	20	29	1600	-0.075	50	1.0
1N5226B	3.3	20	28	1600	-0.070	25	1.0
1N5227B	3.6	20	24	1700	-0.065	15	1.0
1N5228B	3.9	20	23	1900	-0.060	10	1.0
1N5229B	4.3	20	22	2000	-0.055	5.0	1.0
1N5230B	4.7	20	19	1900	+ 0.030	5.0	2.0
1N5231B	5.1	20	17	1600	+ 0.030	5.0	2.0
1N5232B	5.6	20	11	1600	+ 0.038	5.0	3.0
1N5233B	6.0	20	7.0	1600	+ 0.038	5.0	3.5
1N5234B	6.2	20	7.0	1000	+ 0.045	5.0	4.0
1N5235B	6.8	20	5.0	750	+ 0.050	3.0	5.0
1N5236B	7.5	20	6.0	500	+ 0.058	3.0	6.0
1N5237B	8.2	20	8.0	500	+ 0.062	3.0	6.5
1N5238B	8.7	20	8.0	600	+ 0.065	3.0	6.5
1N5239B	9.1	20	10	600	+ 0.068	3.0	7.0
1N5240B	10	20	17	600	+ 0.075	3.0	8.0
1N5241B	11	20	22	600	+ 0.076	2.0	8.4
1N5242B	12	20	30	600	+ 0.077	1.0	9.1
1N5243B	13	10	13	600	+ 0.079	0.5	9.9
1N5244B	14	9.0	15	600	+ 0.082	0.1	10
1N5245B	15	8.5	16	600	+ 0.082	0.1	11
1N5246B	16	7.8	17	600	+ 0.083	0.1	12
1N5247B	17	7.4	19	600	+ 0.084	0.1	13
1N5248B	18	7.0	21	600	+ 0.085	0.1	14
1N5249B	19	6.6	23	600	+ 0.086	0.1	14
1N5250B	20	6.2	25	600	+ 0.086	0.1	15
1N5251B	22	5.6	29	600	+ 0.087	0.1	17
1N5252B	24	5.2	33	600	+ 0.087	0.1	18
1N5253B	25	5.0	35	600	+ 0.089	0.1	19
1N5254B	27	4.6	41	600	+ 0.090	0.1	21
1N5255B	28	4.5	44	600	+ 0.091	0.1	21
1N5256B	30	4.2	49	600	+ 0.091	0.1	23
1N5257B	33	3.8	58	700	+ 0.092	0.1	25
1N5258B	36	3.4	70	700	+ 0.093	0.1	27
1N5259B	39	3.2	80	800	+ 0.094	0.1	30
1N5260B	43	3.0	93	900	+ 0.095	0.1	33
1N5261B	47	2.7	105	1000	+ 0.095	0.1	36
1N5262B	51	2.5	125	1100	+ 0.096	0.1	39
1N5263B	56	2.2	150	1300	+ 0.096	0.1	43
1N5264B	60	2.1	170	1400	+ 0.097	0.1	46
1N5265B	62	2.0	185	1400	+ 0.097	0.1	47
1N5266B	68	1.8	230	1600	+ 0.097	0.1	52
1N5267B	75	1.7	270	1700	+ 0.098	0.1	56
1N5268B	85	1.5	330	2000	+ 0.098	0.1	62
1N5269B	87	1.4	370	2200	+ 0.099	0.1	68
1N5270B	91	1.4	400	2300	+ 0.099	0.1	69
1N5271B	100	1.3	500	2600	+ 0.099	0.1	76
1N5272B	110	1.1	750	3000	+ 0.11	0.1	84
1N5273B	120	1.0	900	4000	+ 0.11	0.1	91
1N5274B	130	0.95	1100	4500	+ 0.11	0.1	99
1N5275B	140	0.90	1300	4500	+ 0.11	0.1	106
1N5276B	150	0.95	1500	5000	+ 0.11	0.1	114
1N5277B	160	0.80	1700	5500	+ 0.11	0.1	122
1N5278B	170	0.74	1900	5500	+ 0.11	0.1	129
1N5279B	180	0.68	2200	6000	+ 0.11	0.1	137

[1)]Based on dc-measurement at thermal equilibrium; lead length=9.5(3/8");thermal resistance of heat sink=30K/W

FIG.1 – BREAKDOWN CHARACTERISTICS

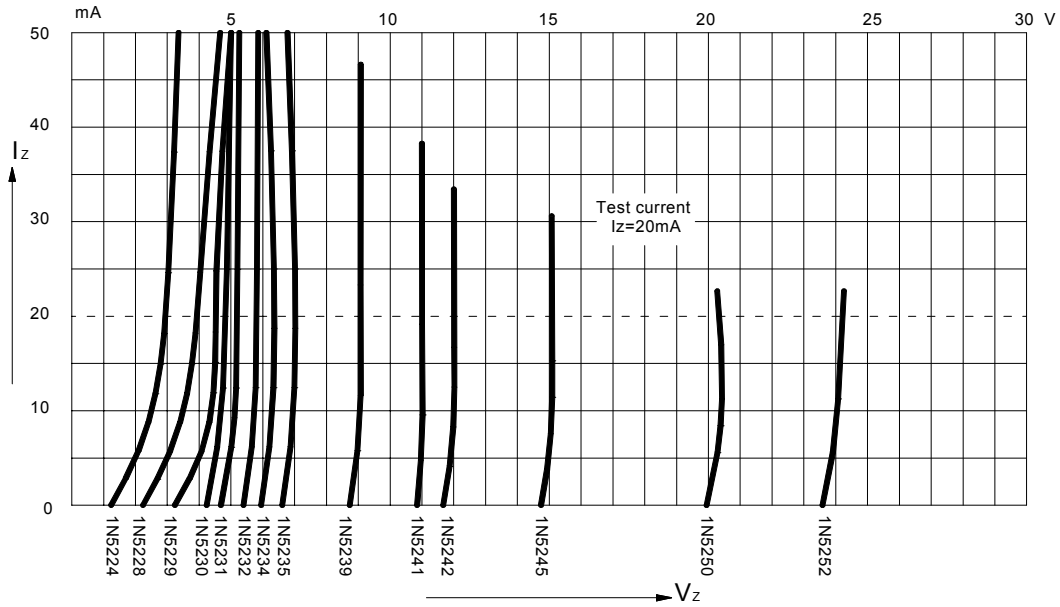


FIG.2 – ADMISSIBLE POWER DISSIPATION VERSUS AMBIENT TEMPERATURE