



1N5220B THRU 1N5267B

SILICON ZENER DIODES

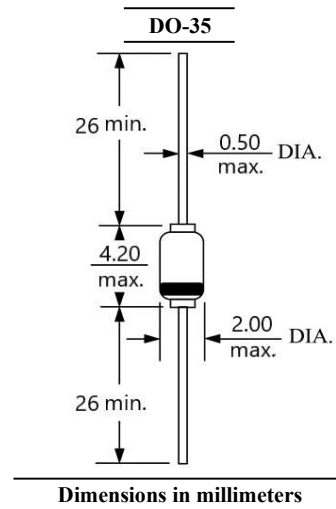
REVERSE VOLTAGE: 2.2 TO 75 VOLTS
POWER DISSIPATION: 500 mWATTS

FEATURES

- Planar Die construction
- 500mW Power Dissipation
- Ideally Suited for Automated Assembly Processes
- Standard Zener voltage tolerance is $\pm 20\%$. Add suffix "A" for $\pm 10\%$ tolerance, suffix "B" for $\pm 5\%$ tolerance, or suffix "C" for $\pm 2\%$ tolerance. Other tolerances and other, non-standard Zener voltages are available upon request.

MECHANICAL DATA

Case : Molded glass DO-35
 Lead : Axial leads, solderable per MIL-STD-202, method 208 guaranteed
 Polarity : Color band denotes cathode end
 Mounting position : Any



Absolute Maximum Ratings

Tamb = 25 °C, unless otherwise specified

Parameter	Symbol	Value	Unit
Power Dissipation	P_D	500 ¹⁾	mWatt
Forward Voltage at $I_F = 200$ mA	V_F	1.1	Volt
Thermal Resistance Junction to Ambient Air	R_{thJA}	0.3 ¹⁾	K/mW
Junction Temperature	T_J	175	°C
Storage Temperature Range	T_{stg}	-65 to +175	°C

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



1N5220B THRU 1N5267B

SILICON ZENER DIODES

Electrical Characteristics

Tamb = 25 °C, unless otherwise specified

Type	Zener Voltage Range ⁽¹⁾				Dynamic Resistance			Reverse Current		Temp. Coefficient of Zener Voltage
	V _{Znom}	V _{ZT}		at I _{ZT}	Z _{ZT}	Z _{ZK}	at I _{ZK}	I _R	at V _R	TK _{VZ}
	(V)	Min. (V)	Max. (V)	(mA)	Max. (Ω)	Max. (Ω)	(mA)	Max. (μA)	(V)	(%/K)
1N5220B	2.2	2.09	2.31	20	30	1150	0.25	100	1.0	<-0.085
1N5221B	2.4	2.28	2.52	20	30	1200	0.25	100	1.0	<-0.085
1N5222B	2.5	2.38	2.62	20	30	1250	0.25	100	1.0	<-0.085
1N5223B	2.7	2.57	2.83	20	30	1300	0.25	75	1.0	<-0.080
1N5224B	2.8	2.66	2.94	20	30	1400	0.25	75	1.0	<-0.080
1N5225B	3.0	2.85	3.15	20	29	1600	0.25	50	1.0	<-0.075
1N5226B	3.3	3.14	3.46	20	28	1600	0.25	25	1.0	<-0.070
1N5227B	3.6	3.42	3.78	20	24	1700	0.25	15	1.0	<-0.065
1N5228B	3.9	3.71	4.09	20	23	1900	0.25	10	1.0	<-0.060
1N5229B	4.3	4.09	4.51	20	22	2000	0.25	5.0	1.0	<-0.055
1N5230B	4.7	4.47	4.93	20	19	1900	0.25	5.0	2.0	<±0.030
1N5231B	5.1	4.85	5.35	20	17	1600	0.25	5.0	2.0	<±0.030
1N5232B	5.6	5.32	5.88	20	11	1600	0.25	5.0	3.0	<+0.038
1N5233B	6.0	5.70	6.30	20	7	1600	0.25	5.0	3.5	<+0.038
1N5234B	6.2	5.89	6.51	20	7	1000	0.25	5.0	4.0	<+0.045
1N5235B	6.8	6.46	7.14	20	5	750	0.25	3.0	5.0	<+0.050
1N5236B	7.5	7.13	7.87	20	6	500	0.25	3.0	6.0	<+0.058
1N5237B	8.2	7.79	8.61	20	8	500	0.25	3.0	6.5	<+0.062
1N5238B	8.7	8.27	9.13	20	8	600	0.25	3.0	6.5	<+0.065
1N5239B	9.1	8.65	9.55	20	10	600	0.25	3.0	7.0	<+0.068
1N5240B	10.0	9.50	10.50	20	17	600	0.25	3.0	8.0	<+0.075
1N5241B	11.0	10.45	11.55	20	22	600	0.25	2.0	8.4	<+0.076
1N5242B	12.0	11.40	12.60	20	30	600	0.25	1.0	9.1	<+0.077
1N5243B	13.0	12.35	13.65	9.5	13	600	0.25	0.5	9.9	<+0.079
1N5244B	14.0	13.30	14.70	9.0	15	600	0.25	0.1	10	<+0.082
1N5245B	15.0	14.25	15.75	8.5	16	600	0.25	0.1	11	<+0.082
1N5246B	16.0	15.20	16.80	7.8	17	600	0.25	0.1	12	<+0.083
1N5247B	17.0	16.15	17.85	7.4	19	600	0.25	0.1	13	<+0.084
1N5248B	18.0	17.10	18.90	7.0	21	600	0.25	0.1	14	<+0.085
1N5249B	19.0	18.05	19.95	6.6	23	600	0.25	0.1	14	<+0.086
1N5250B	20.0	19.00	21.00	6.2	25	600	0.25	0.1	15	<+0.086
1N5251B	22.0	20.90	23.10	5.6	29	600	0.25	0.1	17	<+0.087
1N5252B	24.0	22.80	25.20	5.2	33	600	0.25	0.1	18	<+0.088
1N5253B	25.0	23.75	26.25	5.0	35	600	0.25	0.1	19	<+0.089
1N5254B	27.0	25.65	28.35	4.6	41	600	0.25	0.1	21	<+0.090
1N5255B	28.0	26.60	29.40	4.5	44	600	0.25	0.1	21	<+0.091
1N5256B	30.0	28.50	31.50	4.2	49	600	0.25	0.1	23	<+0.091
1N5257B	33.0	31.35	34.65	3.8	58	700	0.25	0.1	25	<+0.092
1N5258B	36.0	34.20	37.80	3.4	70	700	0.25	0.1	27	<+0.093
1N5259B	39.0	37.05	40.95	3.2	80	800	0.25	0.1	30	<+0.094
1N5260B	43.0	40.85	45.15	3.0	93	900	0.25	0.1	33	<+0.095
1N5261B	47.0	44.65	49.35	2.7	105	1000	0.25	0.1	36	<+0.095
1N5262B	51.0	48.45	53.55	2.5	125	1100	0.25	0.1	39	<+0.096
1N5263B	56.0	53.20	58.80	2.2	150	1300	0.25	0.1	43	<+0.096
1N5264B	60.0	57.00	63.00	2.1	170	1400	0.25	0.1	46	<+0.097
1N5265B	62.0	58.90	65.10	2.0	185	1400	0.25	0.1	47	<+0.097
1N5266B	68.0	64.60	71.40	1.8	230	1600	0.25	0.1	52	<+0.097
1N5267B	75.0	71.25	78.75	1.7	270	1700	0.25	0.1	56	<+0.098

Note:

1. Tested with pulses tp = 20 ms.



1N5220B THRU 1N5267B

SILICON ZENER DIODES

RATINGS AND CHARACTERISTIC CURVES

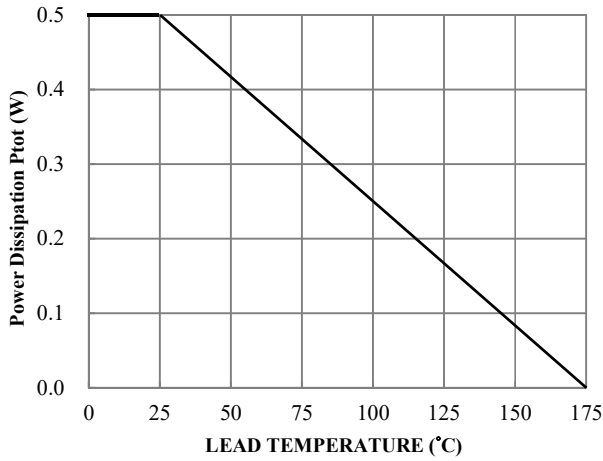


Fig.1-FORWARD CURRENT DERATING CURVE