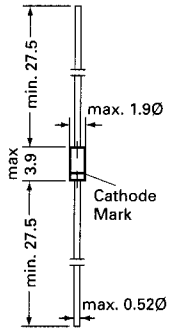
1N 5221 ... 1N 5281
SILICON PLANAR ZENER DIODES

Silicon Planar Zener Diodes
Standard Zener voltage tolerance is ±20%. Add suffix "A" for ±10% tolerance and suffix "B" for ±5% tolerance. Other tolerance, non standard and higher Zener voltages upon request.



Glass case JEDEC DO-35

Dimensions in mm

Absolute Maximum Ratings (T_a = 25 °C)

	Symbol	Value	Unit
Zener Current see Table " Characteristics "			
Power Dissipation at T_{amb} = 75 °C	P_{tot}	500[1)]	mW
Junction Temperature	T_j	200	°C
Storage Temperature Range	T_{stg}	-65 to + 200	°C
[1)] Valid provided that leads at a distance of 8 mm from case are kept at ambient temperature.			

Characteristics at T_{amb} = 25 °C

	Symbol	Min.	Typ	Max	Unit
Thermal Resistance Junction to Ambient Air	R_{thA}	-	-	0.3[1)]	K/mW
Forward Voltage at I_F = 200 mA	V_F	-	-	1.1	V
[1)] Valid provided that leads at a distance of 8 mm from case are kept at ambient temperature.					

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Type	Zener Voltage range[1]		Maximum Zener Impedance [1]			Reverse leakage current		Temp. coefficient of Zener Voltage
	V_{Znom}[3]	I_{ZT}	r_{zjT}	r_{zjK} at I_{ZK}		I_R[2] at V_R		TK_{VZ}
	V	mA	Ω	Ω	mA	µA	V	%/K
1N5221	2.4	20	<30	<1200	0.25	<100	1.0	<-0.085
1N5222	2.5	20	<30	<1250	0.25	<100	1.0	<-0.085
1N5223	2.7	20	<30	<1300	0.25	<75	1.0	<-0.080
1N5224	2.8	20	<30	<1400	0.25	<75	1.0	<-0.080
1N5225	3.0	20	<29	<1600	0.25	<50	1.0	<-0.075
1N5226	3.3	20	<28	<1600	0.25	<25	1.0	<-0.070
1N5227	3.6	20	<24	<1700	0.25	<15	1.0	<-0.065
1N5228	3.9	20	<23	<1900	0.25	<10	1.0	<-0.060
1N5229	4.3	20	<22	<2000	0.25	<5	1.0	<-0.055
1N5230	4.7	20	<19	<1900	0.25	<5	2.0	<±0.030
1N5231	5.1	20	<17	<1600	0.25	<5	2.0	<±0.030
1N5232	5.6	20	<11	<1600	0.25	<5	3.0	<+0.038
1N5233	6.0	20	<7	<1600	0.25	<5	3.5	<+0.038
1N5234	6.2	20	<7	<1000	0.25	<5	4.0	<+0.045
1N5235	6.8	20	<5	<750	0.25	<3	5.0	<+0.050
1N5236	7.5	20	<6	<500	0.25	<3	6.0	<+0.058
1N5237	8.2	20	<8	<500	0.25	<3	6.5	<+0.062
1N5238	8.7	20	<8	<600	0.25	<3	6.5	<+0.065
1N5239	9.1	20	<10	<600	0.25	<3	7.0	<+0.068
1N5240	10	20	<17	<600	0.25	<3	8.0	<+0.075
1N5241	11	20	<22	<600	0.25	<2	8.4	<+0.076
1N5242	12	20	<30	<600	0.25	<1	9.1	<+0.077
1N5243	13	9.5	<13	<600	0.25	<0.5	9.9	<+0.079
1N5244	14	9.0	<15	<600	0.25	<0.1	10	<+0.082
1N5245	15	8.5	<16	<600	0.25	<0.1	11	<+0.082
1N5246	16	7.8	<17	<600	0.25	<0.1	12	<+0.083
1N5247	17	7.4	<19	<600	0.25	<0.1	13	<+0.084
1N5248	18	7.0	<21	<600	0.25	<0.1	14	<+0.085
1N5249	19	6.6	<23	<600	0.25	<0.1	14	<+0.086
1N5250	20	6.2	<25	<600	0.25	<0.1	15	<+0.086
1N5251	22	5.6	<29	<600	0.25	<0.1	17	<+0.087
1N5252	24	5.2	<33	<600	0.25	<0.1	18	<+0.088
1N5253	25	5.0	<35	<600	0.25	<0.1	19	<+0.089
1N5254	27	4.6	<41	<600	0.25	<0.1	21	<+0.090
1N5255	28	4.5	<44	<600	0.25	<0.1	21	<+0.091
1N5256	30	4.2	<49	<600	0.25	<0.1	23	<+0.091
1N5257	33	3.8	<58	<700	0.25	<0.1	25	<+0.092
1N5258	36	3.4	<70	<700	0.25	<0.1	27	<+0.093
1N5259	39	3.2	<80	<800	0.25	<0.1	30	<+0.094
1N5260	43	3.0	<93	<900	0.25	<0.1	33	<+0.095
1N5261	47	2.7	<105	<1000	0.25	<0.1	36	<+0.095
1N5262	51	2.5	<125	<1100	0.25	<0.1	39	<+0.096
1N5263	56	2.2	<150	<1300	0.25	<0.1	43	<+0.096
1N5264	60	2.1	<170	<1400	0.25	<0.1	46	<+0.097
1N5265	62	2.0	<185	<1400	0.25	<0.1	47	<+0.097
1N5266	68	1.8	<230	<1600	0.25	<0.1	52	<+0.097
1N5267	75	1.7	<270	<1700	0.25	<0.1	56	<+0.098
1N5268	82	1.5	<330	<2000	0.25	<0.1	62	<+0.098
1N5269	87	1.4	<370	<2200	0.25	<0.1	68	<+0.099
1N5270	91	1.4	<400	<2300	0.25	<0.1	69	<+0.099
1N5271	100	1.3	<500	--	--	<0.1	75	<+0.100
1N5272	110	1.2	<700	--	--	<0.1	83	<+0.100
1N5273	120	1.0	<950	--	--	<0.1	90	<+0.100
1N5274	130	0.95	<1100	--	--	<0.1	98	<+0.110
1N5275	140	0.90	<1300	--	--	<0.1	105	<+0.110
1N5276	150	0.85	<1500	--	--	<0.1	113	<+0.110
1N5277	160	0.80	<1700	--	--	<0.1	120	<+0.115
1N5278	170	0.74	<1900	--	--	<0.1	127	<+0.115
1N5279	180	0.68	<2200	--	--	<0.1	135	<+0.120
1N5280	190	0.66	<2400	--	--	<0.1	142	<+0.120
1N5281	200	0.65	<2500	--	--	<0.1	150	<+0.120

[1] The Zener Impedance is derived from the 60 Hz AC voltage which results when an AC current having an RMS value equal to 10% of the Zener current (I_{ZT} or I_{ZK}) is superimposed on I_{ZT} or I_{ZK} 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 8 mm from case are kept at ambient temperature.

[3] Measured under thermal equilibrium and DC test conditions.

Admissible power dissipation versus ambient temperature

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