

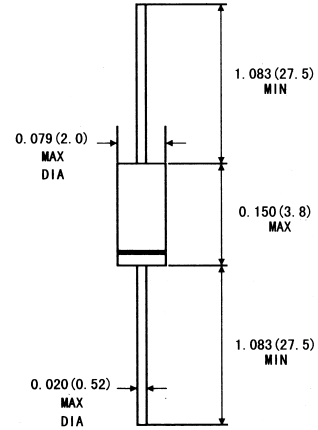
FEATURES

- Standards zener voltage tolerance is $\pm 20\%$. Add suffix "A" for $\pm 10\%$ tolerance and suffix "B" for $\pm 5\%$ tolerance other tolerance, non standards and higher zener voltage upon request.

MECHANICAL DATA

- Case:** DO-35 glass case
- Polarity:** Color band denotes cathode end
- Weight:** Approx. 0.13gram

DO-35



Dimensions in inches and (millimeters)

ABSOLUTE MAXIMUM RATINGS(LIMITING VALUES)($T_A=25^\circ\text{C}$)

	Symbols	Value	Units
Zener current see table "Characteristics"			
Power dissipation at $T_A=75^\circ\text{C}$	P_{tot}	500 ¹⁾	mW
Junction temperature	T_J	175	$^\circ\text{C}$
Storage temperature range	T_{STG}	-65 to + 175	$^\circ\text{C}$
1)Valid provided that at a distance of 8mm from case are kept at ambient temperature			

ELECTRICAL CHARACTERISTICS($T_A=25^\circ\text{C}$)

	Symbols	Min.	Typ.	Max.	Units
Thermal resistance junction to ambient	R_{THA}			0.3 ¹⁾	K/mW
Forward voltage at $I_F=200\text{mA}$	V_F			1.1	V
1)Valid provided that leads at a distance of 8mm from case are kept at ambient temperature					

1N5221..1N5249 SILICON PLANAR ZENER DIODES

Type	Zener Voltage Range ¹⁾		Maximum zener impedance ¹⁾			Maximum Reverse Leakage Current		Temp.Coefficient of zener diode
	V _{ZNOM 3)}	I _{ZT}	r _{zjt} and r _{zjk} at I _{zk}			I _{R 2)} at V _R		TKvz
	V	mA	Ω	Ω	mA	μA	V	%/K
1N5221	2.4	20	<30	<1200	0.25	<100	1.0	<-0.085
1N5222	2.5			<1250		<-0.085		
1N5223	2.6			<1300		<-0.080		
1N5224	2.8			<1400		<-0.080		
1N5225	3.0			<29		<1600		<-0.075
1N5226	3.3			<28		<1600		<-0.070
1N5227	3.6			<24		<1700		<-0.065
1N5228	3.9			<23		<1900		<-0.060
1N5229	4.3			<22		<2000		<+0.055
1N5230	4.7		<19	<1900		2.0	<+0.030	
1N5231	5.1		<17	<1600		2.0	<+0.030	
1N5232	5.6		<11	<1600		3.0	<+0.038	
1N5233	6.0		<7	<1600		3.5	<+0.038	
1N5234	6.2		<7	<1000		4.0	<+0.045	
1N5235	6.8		<5	<750		5.0	<+0.050	
1N5236	7.5		<6	<500		6.0	<+0.058	
1N5237	8.2		<8	<500		6.5	<+0.062	
1N5238	8.7		<8	<600		6.5	<+0.065	
1N5239	9.1		<10			7.0	<+0.068	
1N5240	10		<17			8.0	<+0.075	
1N5241	11	<22	<2		8.4	<+0.076		
1N5242	12	<30	<1		9.1	<+0.077		
1N5243	13	9.5	<0.5		9.9	<+0.079		
1N5244	14	9.0	0.1		10	<+0.082		
1N5245	15	8.5			<16	11	<+0.082	
1N5246	16	7.8			<17	12	<+0.083	
1N5247	17	7.4			<19	13	<+0.084	
1N5248	18	7.0		<21	14	<+0.085		
1N5249	19	6.6		<23	14	<+0.086		

1N5250..1N5281 SILICON PLANAR ZENER DIODES

Type	Zener Voltage Range ¹⁾		Maximum zener impedance ¹⁾			Maximum Reverse Leakage Current		Temp.Coefficient of zener diode	
	V _{ZNOM 3)}	I _{ZT}	r _{zjt} and r _{zjk} at I _{zk}			I _{R 2)} at V _R		TK _{vz}	
	V	mA	Ω	Ω	mA	μA	V	%/K	
1N5250	20	6.2	<25	<600	0.25	<0.1	15	<+0.086	
1N5251	22	5.6	<29				17	<+0.087	
1N5252	24	5.2	<33				18	<+0.088	
1N5253	25	5.0	<35				19	<+0.089	
1N5254	27	4.6	<41				21	<+0.090	
1N5255	28	4.5	<44				21	<+0.091	
1N5256	30	4.2	<49				23	<+0.091	
1N5257	33	3.8	<58				<700	25	<+0.092
1N5258	36	3.4	<70				<700	27	<+0.093
1N5259	39	3.2	<80				<800	30	<+0.094
1N5260	43	3.0	<93				<900	33	<+0.095
1N5261	47	2.7	<105				<1000	36	<+0.095
1N5262	51	2.5	<125				<1100	39	<+0.096
1N5263	56	2.2	<150				<1300	43	<+0.096
1N5264	60	2.1	<170				<1400	46	<+0.097
1N5265	62	2.0	<185				<1400	47	<+0.097
1N5266	68	1.8	<230	<1600	52	<+0.097			
1N5267	75	1.7	<270	<1700	56	<+0.098			
1N5268	82	1.5	<330	<2000	62	<+0.098			
1N5269	87	1.4	<370	<2200	68	<+0.099			
1N5270	91	1.4	<400	<2300	69	<+0.099			
1N5271	100	1.3	<500		75	<+0.100			
1N5272	110	1.2	<700		83	<+0.100			
1N5273	120	1.0	<950		90	<+0.100			
1N5274	130	0.95	<1100		98	<+0.110			
1N5275	140	0.90	<1300		105	<+0.110			
1N5276	150	0.85	<1500		113	<+0.110			
1N5277	160	0.80	<1700		120	<+0.115			
1N5278	170	0.74	<1900		127	<+0.115			
1N5279	180	0.68	<2200		135	<+0.120			
1N5280	190	0.66	<2400		142	<+0.120			
1N5281	200	0.65	<2500		150	<+0.120			

(1)The Zener impedance is derived from the 60Hz Ac voltage which results when an AC current having an RMS value equal to 10% of the Zener current (I_{ZT}) is suprimposed 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 8mm from case are kept at ambient temperature.

(3) Measured under thermal equilibrium and DC test conditions.

1N5221..1N5281 SILICON PLANAR ZENER DIODES

Admissible power dissipation versus ambient temperature
(Valid provided that leads at a distance of 10mm from case
are kept at ambient temperature)

