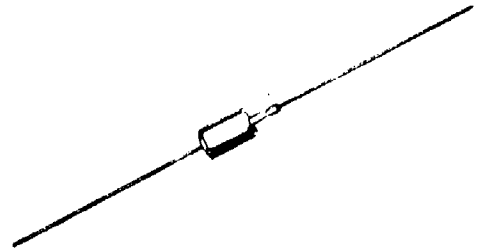


**1N3821 thru 1N3830**  
**1N3016 thru 1N3051**  
1.0 WATT  
ZENER REGULATOR DIODES

3.3-200 VOLTS



**MAXIMUM RATINGS**

Rating	Symbol	Value	Unit
DC Power Dissipation @ T <sub>A</sub> = 25°C Derate above 25°C (See Figure 1)	P <sub>D</sub>	-1.0 6.67	Watt mW/°C
Operating and Storage Junction Temperature Range	T <sub>J</sub> , T <sub>stg</sub>	-65 to +175	°C
Lead Temperature 230°C at a distance not less than 1/16" from the case for 10 seconds.			

**ELECTRICAL CHARACTERISTICS (T<sub>C</sub> = 25°C unless otherwise noted)**

V<sub>F</sub> = 1.5 V max @ I<sub>F</sub> = 200 mA for all types

JEDEC Type No. (Flangeless) (Note 1 & 2)	*Nominal Zener Voltage V <sub>Z</sub> @ I <sub>ZT</sub> Volts (Note 3)	*Test Current I <sub>ZT</sub> mA	*Max Zener Impedance (Note 4)			Max Reverse Current (Note 5)			*Max DC Zener Current I <sub>ZM</sub> mA (Note 6)
			Z <sub>ZT</sub> @ I <sub>ZT</sub> Ohms	Z <sub>ZK</sub> @ I <sub>ZK</sub> Ohms	I <sub>ZK</sub> mA	I <sub>R</sub> Max (μA)	V <sub>R1</sub> 5%	V <sub>R2</sub> 10%	
1N3821	3.3	76	10	400	1.0	*100	*1.0	1.0	276
1N3822	3.6	69	10	400	1.0	*100	*1.0	1.0	252
1N3823	3.9	64	9.0	400	1.0	*50	*1.0	1.0	238
1N3824	4.3	58	9.0	400	1.0	*10	*1.0	1.0	213
1N3825	4.7	53	8.0	500	1.0	*10	*1.0	1.0	194
1N3826	5.1	49	7.0	550	1.0	*10	*1.0	1.0	178
1N3827	5.6	45	5.0	600	1.0	*10	*2.0	2.0	162
1N3828	6.2	41	2.0	700	1.0	*10	*3.0	3.0	146
1N3829	6.8	37	1.5	500	1.0	*10	*3.0	3.0	133
1N3830	7.5	34	1.5	250	1.0	*10	*3.0	3.0	121
1N3016	6.8	37	3.5	700	1.0	10	5.2	4.9	140
1N3017	7.5	34	4.0	700	0.5	10	5.7	5.4	125
1N3018	8.2	31	4.8	700	0.5	10	6.2	5.9	115
1N3019	9.1	28	5.0	700	0.5	7.5	6.9	6.6	106
1N3020	10	25	7.0	700	0.25	5.0	7.6	7.2	95
1N3021	11	23	8.0	700	0.25	5.0	8.4	8.0	85
1N3022	12	21	9.0	700	0.25	2.0	9.1	8.6	80
1N3023	13	19	10	700	0.26	1.0	9.9	9.4	74
1N3024	15	17	14	700	0.28	1.0	11.4	10.8	63
1N3025	16	15.5	16	700	0.26	1.0	12.2	11.5	60
1N3026	18	14	20	750	0.25	0.5	13.7	13.0	52
1N3027	20	12.5	22	750	0.25	0.5	15.2	14.4	47
1N3028	22	11.5	23	750	0.25	0.5	16.7	15.8	43
1N3029	24	10.5	25	750	0.25	0.5	18.2	17.3	40
1N3030	27	9.5	35	750	0.25	0.5	20.6	19.4	34
1N3031	30	8.5	40	1000	0.25	0.5	22.8	21.6	31
1N3032	33	7.5	46	1000	0.25	0.5	25.1	23.8	28
1N3033	36	7.0	50	1000	0.25	0.5	27.4	25.9	26
1N3034	39	6.5	60	1000	0.25	0.5	29.7	28.1	23
1N3035	43	6.0	70	1500	0.25	0.5	32.7	31.0	21
1N3036	47	5.5	80	1500	0.25	0.5	35.8	33.8	19
1N3037	51	5.0	95	1500	0.25	0.5	38.8	36.7	18
1N3038	56	4.5	110	2000	0.25	0.5	42.6	40.3	17
1N3039	62	4.0	125	2000	0.25	0.5	47.1	44.6	15
1N3040	68	3.7	150	2000	0.25	0.5	51.7	49.0	14
1N3041	75	3.3	175	2000	0.25	0.5	56.0	54.0	12
1N3042	82	3.0	200	3000	0.25	0.5	62.2	59.0	11
1N3043	91	2.8	250	3000	0.25	0.5	69.2	65.5	10
1N3044	100	2.5	350	3000	0.25	0.5	76.0	72.0	9.0
1N3045	110	2.3	450	4000	0.25	0.5	83.6	79.2	8.3
1N3046	120	2.0	550	4500	0.25	0.5	91.2	86.4	8.0
1N3047	130	1.9	700	5000	0.25	0.5	98.8	93.6	6.9
1N3048	150	1.7	1000	8000	0.25	0.5	114.0	108.0	5.7
1N3049	160	1.6	1100	8500	0.25	0.5	121.6	115.2	5.4
1N3050	180	1.4	1200	7000	0.25	0.5	136.8	129.6	4.9
1N3051	200	1.2	1500	8000	0.25	0.5	152.0	144.0	4.6

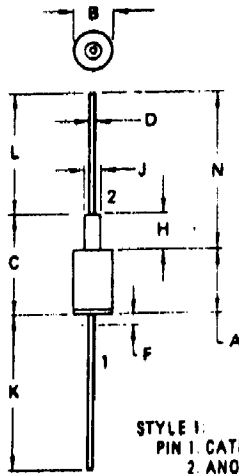


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**NOTE 1 - TOLERANCE AND TYPE NUMBER DESIGNATION**

1N3821 thru 1N3830 - The JEDEC type numbers shown have a standard tolerance for the nominal zener voltage of  $\pm 10\%$ . A standard tolerance of  $\pm 5\%$  for individual units is also available and is indicated by adding suffix "A" to the standard type number.

1N3016 thru 1N3061 - The JEDEC type numbers shown have a standard tolerance of  $\pm 20\%$  for the nominal zener voltage. Suffix "A" for  $\pm 10\%$  units or "B" for  $\pm 5\%$  units.



DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	7.44	9.07	0.293	0.357
B	5.46	5.97	0.215	0.235
C	-	14.48	-	0.570
D	0.84	0.89	0.025	0.035
F	-	4.78	-	0.188
J	1.14	2.54	0.045	0.100
K	25.40	41.28	1.000	1.625
L	25.40	41.28	1.000	1.625