

**1N5985  
thru  
1N6031**

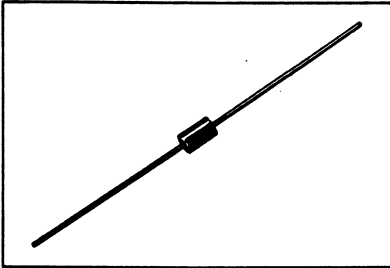
**500 MILLIWATT HERMETICALLY SEALED  
GLASS SILICON ZENER DIODES**

... A complete line of 500 mW Zener Diodes offering the following advantages:

- Complete Voltage Range – 2.4 to 200 Volts
- DO-35 Package – Smaller than Conventional DO-7 Package
- Double Slug Type Construction
- Metallurgically Bonded Construction
- JEDEC Registered
- Oxide Passivated Die

**500 MILLIWATT  
GLASS ZENER DIODES**

**2.4 – 200 VOLTS**



**\*MAXIMUM RATINGS**

Rating	Symbol	Value	Unit
DC Power Dissipation @ $T_L < 50^\circ\text{C}$ , Lead Length = 3/8"	$P_D$	500	mW
Derate above $50^\circ\text{C}$		3.33	mW/ $^\circ\text{C}$
Operating and Storage Junction Temperature Range	$T_{J, \text{stg}}$	-55 to +200	$^\circ\text{C}$

**\*ELECTRICAL CHARACTERISTICS ( $T_L = 30^\circ\text{C}$  unless otherwise noted.) ( $V_F = 1.5$  Volts Max @  $I_F = 100$  mA dc for all types.)**

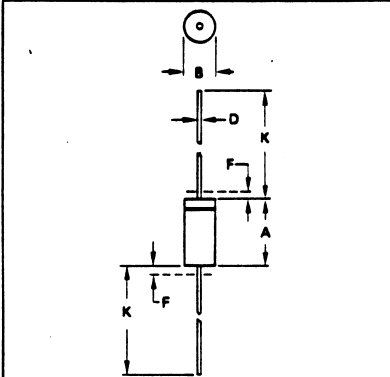
Mouser Type Number (Note 1)	Nominal Zener Voltage $V_Z @ I_{ZT}$ Volts (Note 2)	Test Current $I_{ZT}$ mA	Max. Zener Impedance (Note 4)				Max. Reverse Leakage Current				Max. DC Zener Current $I_{ZM}$ (Note 3)
			$Z_{ZT} @ I_{ZT}$ Ohms		$Z_{ZK} @ I_{ZK} =$ Ohms 0.25 mA		$I_R$ $\mu\text{A}$		$V_R$ Volts		
			B Suffix	A, Non- Suffix	B Suffix	A, Non- Suffix	B Suffix	A, Non- Suffix	B Suffix	A, Non- Suffix	
1N5985	2.4	5.0	100	110	1800	2000	100	100	1.0	0.5	208
1N5986	2.7	5.0	100	110	1900	2200	75	100	1.0	0.5	185
1N5987	3.0	5.0	95	100	2000	2300	50	100	1.0	0.5	167
1N5988	3.3	5.0	95	100	2200	2400	25	75	1.0	0.5	152
1N5989	3.6	5.0	90	95	2300	2500	15	50	1.0	0.5	139
1N5990	3.9	5.0	90	95	2400	2500	10	25	1.0	1.0	128
1N5991	4.3	5.0	88	90	2500	2500	5.0	15	1.0	1.0	116
1N5992	4.7	5.0	70	90	2200	2500	3.0	10	1.5	1.0	106
1N5993	5.1	5.0	50	88	2050	2500	2.0	5.0	2.0	1.0	98
1N5994	5.6	5.0	25	70	1800	2200	2.0	3.0	3.0	1.5	89
1N5995	6.2	5.0	10	50	1300	2050	1.0	2.0	4.0	2.0	81
1N5996	6.8	5.0	8.0	25	750	1800	1.0	2.0	5.2	3.0	74
1N5997	7.5	5.0	7.0	10	600	1300	0.5	1.0	6.0	4.0	67
1N5998	8.2	5.0	7.0	15	600	750	0.5	1.0	6.5	5.2	61
1N5999	9.1	5.0	10	18	600	600	0.1	0.5	7.0	6.0	56
1N6000	10	5.0	15	22	600	600	0.1	0.5	8.0	6.5	50
1N6001	11	5.0	18	25	600	600	0.1	0.1	8.4	7.0	45
1N6002	12	5.0	22	32	600	600	0.1	0.1	9.1	8.0	42
1N6003	13	5.0	25	36	600	600	0.1	0.1	9.9	8.4	38
1N6004	15	5.0	32	42	600	600	0.1	0.1	11	9.1	33
1N6005	16	5.0	36	48	600	600	0.1	0.1	12	9.9	31
1N6006	18	5.0	42	55	600	600	0.1	0.1	14	11	28
1N6007	20	5.0	48	62	600	600	0.1	0.1	15	12	25
1N6008	22	5.0	55	70	600	600	0.1	0.1	17	14	23
1N6009	24	5.0	62	78	600	600	0.1	0.1	18	15	21
1N6010	27	5.0	70	88	600	700	0.1	0.1	21	17	19
1N6011	30	5.0	78	96	600	700	0.1	0.1	23	18	17
1N6012	33	5.0	88	110	700	800	0.1	0.1	25	21	15
1N6013	36	5.0	95	130	700	900	0.1	0.1	27	23	14
1N6014	39	2.0	130	170	800	1000	0.1	0.1	30	25	13
1N6015	43	2.0	150	180	900	1100	0.1	0.1	33	27	12
1N6016	47	2.0	170	200	1000	1300	0.1	0.1	36	30	11
1N6017	51	2.0	180	225	1300	1400	0.1	0.1	39	33	9.8
1N6018	56	2.0	200	240	1400	1600	0.1	0.1	43	36	8.9
1N6019	62	2.0	225	265	1400	1700	0.1	0.1	47	39	8.0
1N6020	68	2.0	240	280	1600	2000	0.1	0.1	52	43	7.4
1N6021	75	2.0	265	300	1700	2300	0.1	0.1	56	47	6.7
1N6022	82	2.0	280	350	2000	2600	0.1	0.1	62	52	6.1
1N6023	91	2.0	300	400	2300	3000	0.1	0.1	69	56	5.5
1N6024	100	1.0	500	800	2600	4000	0.1	0.1	76	62	5.0
1N6025	110	1.0	650	950	3000	4500	0.1	0.1	84	69	4.5
1N6026	120	1.0	800	1250	4000	5000	0.1	0.1	91	76	4.2
1N6027	130	1.0	950	1400	4500	5500	0.1	0.1	99	84	3.8
1N6028	150	1.0	1250	1700	5000	6000	0.1	0.1	114	91	3.3
1N6029	160	1.0	1400	2000	5500	7000	0.1	0.1	122	99	3.1
1N6030	180	1.0	1700	2350	6000	8000	0.1	0.1	137	114	2.8
1N6031	200	1.0	2000	2700	7000	9000	0.1	0.1	152	122	2.5

\*Indicates JEDEC Registered Data.

**NOTE 1 – TOLERANCE AND VOLTAGE DESIGNATION**  
Tolerance designation – The type numbers listed indicate a tolerance of  $\pm 20\%$ . Devise tolerances of  $\pm 10\%$  are indicated by an "A" suffix,  $\pm 5\%$  by a "B" suffix.

C = 2% Tol

B = 5% Tol



DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	3.05	5.08	0.120	0.200
B	1.52	2.29	0.060	0.090
D	0.46	0.56	0.018	0.022
F	-	1.27	-	0.050
K	25.40	38.10	1.000	1.500

All JEDEC dimensions and notes apply.

**CASE  
DO-35**

1. PACKAGE CONTOUR OPTIONAL WITHIN A AND B. HEAT SLUGS, IF ANY, SHALL BE INCLUDED WITHIN THIS CYLINDER, BUT NOT SUBJECT TO THE MINIMUM LIMIT OF B.
2. LEAD DIAMETER NOT CONTROLLED IN ZONE F TO ALLOW FOR FLASH, LEAD FINISH BUILDUP AND MINOR IRREGULARITIES OTHER THAN HEAT SLUGS.
3. POLARITY DENOTED BY CATHODE BAND.
4. DIMENSIONING AND TOLERANCING PER ANSI Y14.5, 1973.