

DO-35 glass 0.5 Watt

1N5985B
thru
1N6031B

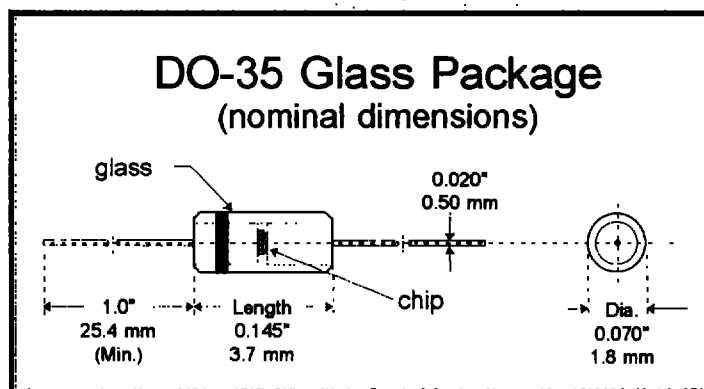
Zener Diodes

Use Advantages

This family is a US JEDEC equivalent to the European PRO Electron types. The specifications reflect similar low zener test currents over voltage ranges. For use in clipping and stabilizing circuits, where real protection is needed. Competitive glass replacement for plastic zener diodes. Compatible with all major automatic assembly equipment. May be used on ceramic boards along with high temperature IR solder reflow.

Features

- Six Sigma quality
- High surge capability
- Humidity proof glass
- Metallurgically bonded
- Thermally matched system
- No applications restrictions
- BKC's Sigma Bond™ plating for problem free solderability
- Screening capability to Source Control Drawings
- LL-34/35 MELF (DO-213AA) SMD surface mount glass types available



Absolute Maximum Ratings	Symbol	Value	Unit
Power Dissipation at 3/8" from the body, $T_L = 50^\circ\text{C}$	P_{tot}	0.5	Watt
Junction Temperature	T_j	200	$^\circ\text{C}$
Operating and Storage Temperature Range	T_s	-65 to +200	$^\circ\text{C}$

Characteristics at $T = 25^\circ\text{C}$	Symbol	Limit	Unit
Power derating at 3/8" from the body, $T_L = 50^\circ\text{C}$	P_{DR}	3.33 (Max)	mW/ $^\circ\text{C}$
Forward Voltage at $I_F = 100\text{ mA}$ and $T_L = 30^\circ\text{C}$	V_F	1.5 (Max)	Volt

LL-34/35 MELF (DO-213AA) surface mount package available, substitute an LL prefix in place of 1N.

DETAILED SPECIFICATIONS ON REVERSE



6 Lake Street
Lawrence, MA
USA 01841

Telephone (508) 681-0392 • FAX (508) 681-9135

BKC35089

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Detail Specifications

Type	Nominal Zener Voltage (V_Z) @ I_{ZT}		Maximum Zener Impedance		Maximum Reverse Leakage Current		Maximum Zener Current (I_{ZM}) mA	Typical Temp. Coef. of Zener Voltage %/°C
	Volts	mA	Z_{ZT} @ I_{ZT} Ohms	Z_{ZK} @ 250 μ A Ohms	(I_R) μ A	@ V_R Volts		
1N5985B	2.4	5.0	100	1800	100	1.0	208	-0.09
1N5986B	2.7	5.0	100	1900	75	1.0	185	-0.075
1N5987B	3.0	5.0	95	2000	50	1.0	167	-0.07
1N5988B	3.3	5.0	95	2200	25	1.0	152	-0.06
1N5989B	3.6	5.0	90	2300	15	1.0	139	-0.055
1N5990B	3.9	5.0	90	2400	10	1.0	128	-0.045
1N5991B	4.3	5.0	88	2500	5.0	1.0	116	-0.01
1N5992B	4.7	5.0	70	2200	3.0	1.5	106	+0.01
1N5993B	5.1	5.0	50	2050	2.0	2.0	98	+0.025
1N5994B	5.6	5.0	25	1800	2.0	3.0	89	+0.035
1N5995B	6.2	5.0	10	1300	1.0	4.0	81	+0.04
1N5996B	6.8	5.0	8.0	750	1.0	5.2	74	+0.044
1N5997B	7.5	5.0	7.0	600	0.5	6.0	67	+0.051
1N5998B	8.2	5.0	7.0	600	0.5	6.5	61	+0.055
1N5999B	9.1	5.0	10	600	0.1	7.0	55	+0.061
1N6000B	10	5.0	15	600	0.1	8.0	50	+0.065
1N6001B	11	5.0	18	600	0.1	8.4	45	+0.068
1N6002B	12	5.0	22	600	0.1	9.1	42	+0.07
1N6003B	13	5.0	25	600	0.1	9.9	38	+0.075
1N6004B	15	5.0	32	600	0.1	11	33	+0.079
1N6005B	16	5.0	36	600	0.1	12	31	+0.080
1N6006B	18	5.0	42	600	0.1	14	28	+0.083
1N6007B	20	5.0	48	600	0.1	15	25	+0.085
1N6008B	22	5.0	55	600	0.1	17	23	+0.087
1N6009B	24	5.0	62	600	0.1	18	21	+0.090
1N6010B	27	5.0	70	600	0.1	21	19	+0.091
1N6011B	30	5.0	78	600	0.1	23	17	+0.093
1N6012B	33	5.0	88	700	0.1	25	15	+0.094
1N6013B	36	5.0	95	700	0.1	27	14	+0.094
1N6014B	39	2.0	130	800	0.1	30	13	+0.095
1N6015B	43	2.0	150	900	0.1	33	12	+0.095
1N6016B	47	2.0	170	1000	0.1	36	11	+0.096
1N6017B	51	2.0	180	1300	0.1	39	9.9	+0.096
1N6018B	56	2.0	200	1400	0.1	43	8.9	+0.096
1N6019B	62	2.0	225	1400	0.1	47	8.0	+0.097
1N6020B	68	2.0	240	1600	0.1	52	7.4	+0.097
1N6021B	75	2.0	265	1700	0.1	56	6.7	+0.098
1N6022B	82	2.0	280	2000	0.1	62	6.1	+0.098
1N6023B	91	2.0	300	2300	0.1	69	5.5	+0.099
1N6024B	100	1.0	500	2600	0.1	76	5.0	+0.110
1N6025B	110	1.0	650	3000	0.1	84	4.5	+0.110
1N6026B	120	1.0	800	4000	0.1	91	4.2	+0.110
1N6027B	130	1.0	950	4500	0.1	99	3.8	+0.110
1N6028B	150	1.0	1250	5000	0.1	114	3.3	+0.110
1N6029B	160	1.0	1400	5500	0.1	122	3.1	+0.110
1N6030B	180	1.0	1700	6000	0.1	137	2.8	+0.110
1N6031B	200	1.0	2000	7000	0.1	152	2.5	+0.110

Voltage tolerance is $\pm 5\%$. For other tolerances and other zener voltages, consult factory.

For an LL-34/35 Mini-MELF SMD Glass package, replace the "1N" prefix with "LL".



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