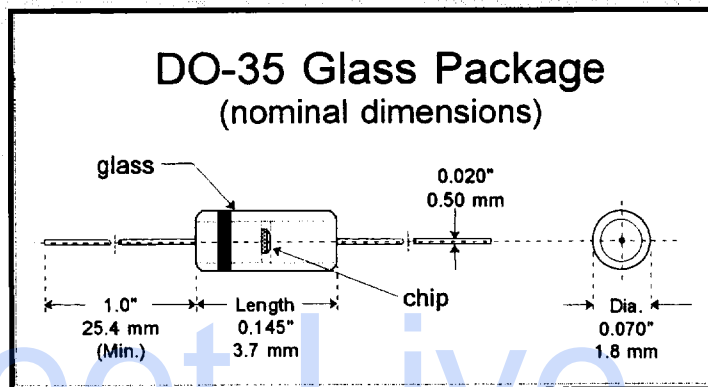


**Use Advantages**

For use in clipping and stabilizing circuits, where real protection is needed.  
 Competitive glass replacement for plastic DO-35 zener diodes.  
 Compatible with all major automatic assembly equipment.  
 May be used on ceramic boards along with high temperature IR solder reflow.  
 Full range of MIL-S-19500/117 approvals, see list for bold ✓ types.

**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
- Available up to JANTXV-1 levels
- "S" level Screening capability to Source Control Drawings
- (DO-213AA) MELF SMD available in Mil "UR" and (LL) commercial types



Absolute Maximum Ratings	Symbol	Value	Unit
Power Dissipation at 3/8" from the body, $T_L = 75\text{ }^\circ\text{C}$	$P_{tot}$	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 $T = 25\text{ }^\circ\text{C}$	Symbol	Limit	Unit
Power derating at 3/8" from the body, $T_L = 75\text{ }^\circ\text{C}$	$P_{DR}$	4.0 (Max)	mW/ $^\circ\text{C}$
Forward Voltage at $I_F = 200\text{ mA}$	$V_F$	1.1 (Max)	Volts

For MIL types add a JAN, JTX or JTXV prefix along with a -1 suffix to the ✓ type numbers listed.  
 LL-34/35 MELF surface mount package available, substitute an LL prefix instead of the 1N prefix.

For MELF SMD MIL types precede the -1 with "UR".

DETAILED SPECIFICATIONS ON REVERSE



6 Lake Street  
 Lawrence, MA  
 USA 01841

\*BKCS020\*

DO-35 glass 0.4 Watt



Zener Diodes

1N957B  
thru  
1N992B

## Detail Specifications

Type	Nominal Zener Voltage	Test Current	Maximum Zener Impedance			Typical Temperature Coefficient	Maximum Reverse Leakage Current		Maximum Regulator Current
	( $V_Z$ ) @ $I_{ZT}$ Volts	$I_{ZT}$ mA	( $Z_{ZT}$ ) @ $I_{ZT}$ Ohms	( $Z_{ZK}$ ) @ $I_{ZK}$ Ohms	$I_{ZK}$ mA	%/°C	( $I_R$ ) µA	@ $V_R$ Volts	( $I_{ZM}$ ) mA
1N957B	6.8	18.5	4.5	700	1.0	0.050	150	5.2	55
1N958B	7.5	16.5	5.5	700	0.5	0.058	75	5.7	50
1N959B	8.2	15.0	6.5	700	0.5	0.062	50	6.2	45
1N960B	9.1	14.0	7.5	700	0.5	0.068	25	6.9	41
1N961B	10	12.5	8.5	700	0.25	0.075	10	7.6	38
1N962B ✓	11	11.5	9.5	700	0.25	0.076	5	8.4	35
1N963B ✓	12	10.5	11.5	700	0.25	0.077	5	9.1	32
1N964B ✓	13	9.5	13	700	0.25	0.079	5	9.9	30
1N965B ✓	15	8.5	16	700	0.25	0.082	5	11.4	26
1N966B ✓	16	7.8	17	700	0.25	0.083	5	12.2	25
1N967B ✓	18	7.0	21	750	0.25	0.085	5	13.7	21
1N968B ✓	20	6.2	25	750	0.25	0.086	5	15.2	19
1N969B ✓	22	5.6	29	750	0.25	0.087	5	16.7	17
1N970B ✓	24	5.2	33	750	0.25	0.088	5	18.2	16
1N971B ✓	27	4.6	41	750	0.25	0.090	5	20.6	14
1N972B ✓	30	4.2	49	1000	0.25	0.091	5	22.8	13
1N973B ✓	33	3.8	58	1000	0.25	0.092	5	25.1	12
1N974B ✓	36	3.4	70	1000	0.25	0.093	5	27.4	11
1N975B ✓	39	3.2	80	1000	0.25	0.094	5	29.7	9.1
1N976B ✓	43	3.0	93	1500	0.25	0.095	5	32.7	8.8
1N977B ✓	47	2.7	105	1500	0.25	0.095	5	35.8	7.9
1N978B ✓	51	2.5	125	1500	0.25	0.096	5	38.8	7.4
1N979B ✓	56	2.2	150	2000	0.25	0.096	5	42.6	6.9
1N980B ✓	62	2.0	185	2000	0.25	0.097	5	47.1	6.0
1N981B ✓	68	1.8	230	2000	0.25	0.097	5	51.7	5.5
1N982B ✓	75	1.7	270	2000	0.25	0.098	5	56.0	5.1
1N983B ✓	82	1.5	330	3000	0.25	0.098	5	62.2	4.6
1N984B ✓	91	1.4	400	3000	0.25	0.099	5	69.2	4.2
1N985B ✓	100	1.3	500	3000	0.25	0.11	5	76.0	3.7
1N986B ✓	110	1.1	750	4000	0.25	0.11	5	83.6	3.3
1N987B ✓	120	1.0	900	4500	0.25	0.11	5	91.2	3.1
1N988B ✓	130	0.95	1100	5000	0.25	0.11	5	98.8	2.7
1N989B ✓	150	0.85	1500	6000	0.25	0.11	5	114.0	2.4
1N990B ✓	160	0.80	1700	6500	0.25	0.11	5	121.6	2.2
1N991B ✓	180	0.68	2200	7100	0.25	0.11	5	136.8	2.0
1N992B ✓	200	0.65	2500	8000	0.25	0.11	5	152.0	1.8

Voltage tolerance is  $\pm 5\%$ . Use suffix "A" for  $\pm 10\%$  tolerance and non-suffix part numbers for  $\pm 20\%$  tolerance.

Other tolerances available upon request. For commercial MELF surface mount package, replace "1N" prefix with "LL".

To order Mil types; add a JAN, JTX or JTXV prefix along with a -1 suffix to the ✓ type numbers listed above.

For DO-213AA SMD Mil parts precede the -1 with "UR".



6 Lake Street  
Lawrence, MA  
USA 01841

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