



# Silicon Zener Diode Series

## 1N957B thru 1N986B

### Features

- Available in JAN, JANTX and JANTXV per MIL-PRF-19500/117
- Standard voltage tolerences are plus/minus 5% with B suffix, 10% with A suffix identification.
- Tight tolerences available in plus or minus 2% or 1% with C or D suffix respectively.
- 500 mW power handling
- Hermetically sealed axial-leaded glass DO-35 package.

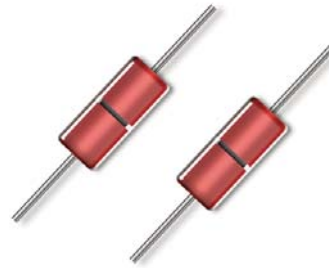
### Maximum Ratings

Operating & Storage Temperature: -65°C to +175°C

Thermal Resistance: 250°C/W

Steady-State Power: 0.5 watts

Foward Voltage @200 MA: 1.1 V for 1N 975B - 1N985B  
1.3 V for 1N985 - 1N992B



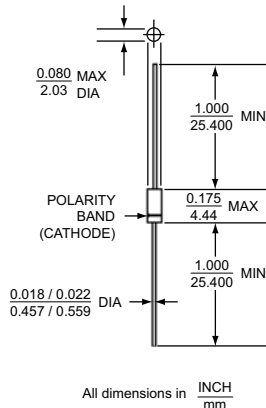
### Electrical Specifications @ +25 °C (Unless Otherwise Specified)

JEDEC TYPE Number (Note 1)	Normal Zener Voltage $V_Z$	Zener Test Current $I_{ZT}$	Maximum Zener Impedance			Maximum DC Zener Current $I_{ZM}$	Maxmum Surge Current $I_{ZSM}$	Maximum Reverse Leakage		Maximum Temperature Coefficient $\alpha_{VZ}$
	Volts	mA	$Z_{ZT} @ I_{ZT}$ Ohms	$Z_{ZK} @ I_{ZK}$ Ohms	$I_{ZK}$ mA	mA	mA	$I_R @ V_R$ $\mu A$	Volts	%/°C
1N957B	6.8	18.5	4.5	700	1.0	55	300	150	5.2	+0.05
1N958B	7.5	16.5	5.5	700	.5	50	275	75	5.7	+0.058
1N959B	8.2	15.0	6.5	700	.5	45	250	50	6.2	+0.065
1N960B	9.1	14.0	7.5	700	.5	41	225	25	6.9	+0.068
1N961B	10	12.5	8.5	700	.25	38	200	10	7.6	+0.075
1N962B	11	11.5	9.5	700	.25	32	175	0.5	8.4	+0.076
1N963B	12	10.5	11.5	700	.25	31	160	0.5	9.1	+0.077
1N964B	13	9.5	13	700	.25	28	150	0.5	9.9	+0.079
1N965B	15	8.5	16	700	.25	25	130	0.5	11.4	+0.082
1N966B	16	7.8	17	700	.25	24	120	0.5	12.2	+0.083
1N967B	18	7.0	21	750	.25	20	110	0.5	13.7	+0.085
1N968B	20	6.2	25	750	.25	18	100	0.5	15.2	+0.086
1N969B	22	5.6	29	750	.25	16	90	0.5	16.7	+0.087
1N970B	24	5.2	33	750	.25	15	80	0.5	18.2	+0.088
1N971B	27	4.6	41	750	.25	13	70	0.5	20.6	+0.090
1N972B	30	4.2	49	1000	.25	12	65	0.5	22.8	+0.091
1N973B	33	3.8	58	1000	.25	11	60	0.5	25.1	+0.092
1N974B	36	3.4	70	1000	.25	10	55	0.5	27.4	+0.093
1N975B	39	3.2	80	1000	.25	9.5	46	0.5	29.7	+0.094
1N976B	43	3.0	93	1000	.25	8.8	44	0.5	32.7	+0.095
1N977B	47	2.7	105	1500	.25	7.9	40	0.5	35.8	+0.095
1N978B	51	2.5	125	1500	.25	7.4	37	0.5	38.8	+0.096
1N979B	56	2.2	150	2000	.25	6.8	35	0.5	42.6	+0.096
1N980B	62	2.0	185	2000	.25	6.0	30	0.5	47.1	+0.097
1N981B	68	1.8	230	2000	.25	5.5	28	0.5	51.7	+0.097
1N982B	75	1.7	270	2000	.25	5.0	26	0.5	56.0	+0.098
1N983B	82	1.5	330	3000	.25	4.6	23	0.5	62.2	+0.098
1N984B	91	1.4	400	3000	.25	4.1	21	0.5	69.2	+0.099
1N985B	100	1.3	500	3000	.25	3.7	18	0.5	76.0	+0.11
1N986B	110	1.1	750	4000	.25	3.3	16	0.5	83.6	+0.11

NOTE 1: The JEDEC type numbers shown (B Suffix) have a  $\pm 5\%$  tolerance on nominal Zener Voltage. The suffix A is used to identify  $\pm 10\%$  tolerance; suffix C is used to identify  $\pm 2\%$ ; and suffix D is used identify  $\pm 1\%$ ; no suffix indicates  $\pm 20\%$ .



Outline Drawing



LEADED DESIGN DATA

CASE: Hermetically sealed, DO – 35

LEAD MATERIAL: Copper clad steel

LEAD FINISH: Tin / Lead

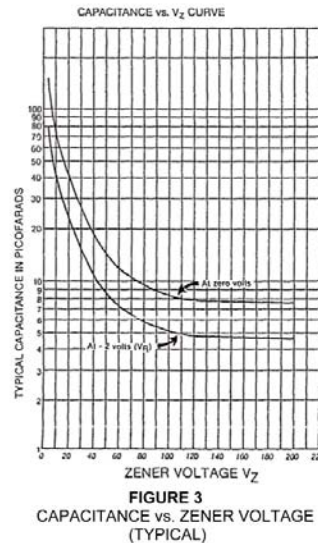
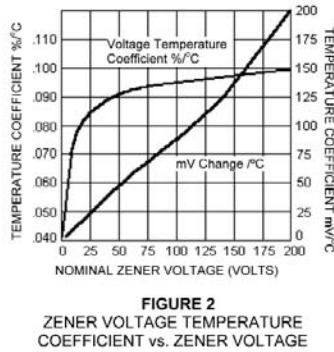
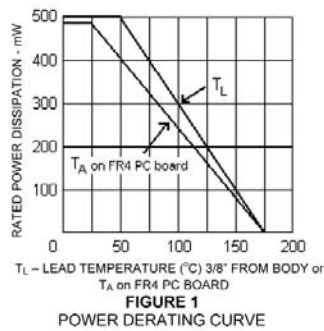
THERMAL RESISTANCE: ( $R_{\theta JEC}$ ): 70 °C/W maximum at L = 0.375 in

THERMAL IMPEDANCE: ( $Z_{\theta JX}$ ): 12 °C/W maximum

POLARITY: Cathode end is banded.

MOUNTING POSITION: Any

Graphs



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