

Silicon Zener Diode Series

1N957B thru 1N986B



Features

- Available in JAN, JANTX and JANTXV per MIL-PRF-19500/117
- Standard voltage tolerances are plus/minus 5% with B suffix, 10% with A suffix identification.
- Tight tolerances 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.

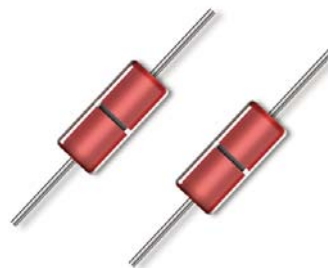
Maximum Ratings

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

Thermal Resistance: 250°C/W

Steady-State Power: 0.5 watts

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



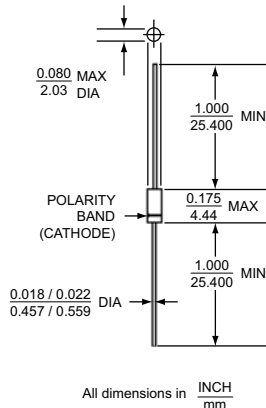
Electrical Specifications @ +25 °C (Unless Otherwise Specified)

JEDEC TYPE Number (Note 1)	Normal Zener Voltage	Zener Test Current	Maximum Zener Impedance			Maximum DC Zener Current	Maximum Surge Current	Maximum Reverse Leakage		Maximum Temperature Coefficient
	V _Z Volts	I _{ZT} mA	Z _{ZT} @ I _{ZT} Ohms	Z _{ZK} @ I _{ZK} Ohms	I _{ZK} mA	I _{ZM} mA	I _{ZSM} mA	I _R @ V _R µA	V _R Volts	α _{VZ} %/°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 ±5% tolerance on nominal Zener Voltage. The suffix A is used to identify ±10% tolerance; suffix C is used to identify ±2%; and suffix D is used identify ±1%; no suffix indicates ±20%.



Outline Drawing



LEADED DESIGN DATA

CASE: Hermetically sealed, DO – 35

LEAD MATERIAL: Copper clad steel

LEAD FINISH: Tin / Lead

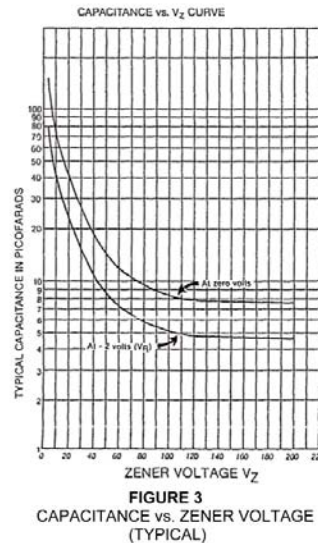
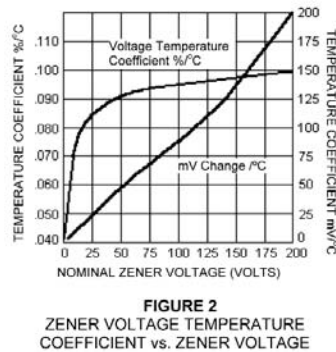
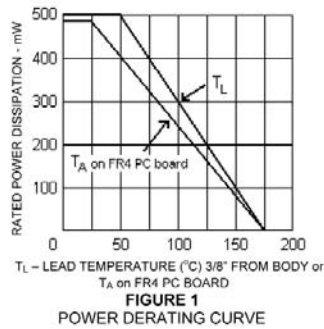
THERMAL RESISTANCE: ($R_{\theta JEC}$): 70 °C/W maximum at L = 0.375 in

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

POLARITY: Cathode end is banded.

MOUNTING POSITION: Any

Graphs



Aeroflex / Metelics, Inc.

975 Stewart Drive,
Sunnyvale, CA 94085
Tel: (408) 737-8181
Fax: (408) 733-7645

Sales: 888-641-SEMI (7364)

Hi-Rel Components
9 Hampshire Street,
Lawrence, MA 01840
Tel: (603) 641-3800
Fax: (978) 683-3264

www.aeroflex.com/metelics-hirelcomponents

54 Grenier Field Road,
Londonderry, NH 03053
Tel: (603) 641-3800
Fax: (603)-641-3500

ISO 9001: 2008 certified companies

www.aeroflex.com/metelics metelics-sales@eroflex.com

Aeroflex / Metelics, Inc. reserves the right to make changes to any products and services herein at any time without notice. Consult Aeroflex or an authorized sales representative to verify that the information in this data sheet is current before using this product. Aeroflex does not assume any responsibility or liability arising out of the application or use of any product or service described herein, except as expressly agreed to in writing by Aeroflex; nor does the purchase, lease, or use of a product or service from Aeroflex convey a license under any patent rights, copyrights, trademark rights, or any other of the intellectual rights of Aeroflex or of third parties.

Copyright 2009 Aeroflex / Metelics. All rights reserved.



Our passion for performance is defined by three attributes represented by these three icons: solution-minded, performance-driven and customer-focused.