

1N957B THRU 1N992B

SILICON ZENER DIODE
6.8 VOLTS THRU 200 VOLTS
500mW, 5% TOLERANCE



DO-35 CASE



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR 1N957B Series Silicon Zener Diode is a high quality voltage regulator designed for use in industrial, commercial, entertainment and computer applications.

MAXIMUM RATINGS: ($T_L=75^{\circ}\text{C}$)

Power Dissipation

Operating and Storage Junction Temperature

V_Z Tolerance: Part number with "B" suffix

V_Z Tolerance: Part number with "C" suffix

V_Z Tolerance: Part number with "D" suffix

SYMBOL

P_D

T_J, T_{stg}

500

-65 to +200

± 5

± 2

± 1

UNITS

mW

$^{\circ}\text{C}$

%

%

%

ELECTRICAL CHARACTERISTICS: ($T_A=25^{\circ}\text{C}$) $V_F=1.5\text{V MAX @ } I_F=200\text{mA}$ (for all types)

TYPE	ZENER VOLTAGE $V_Z @ I_{ZT}$			TEST CURRENT	MAXIMUM ZENER IMPEDANCE			MAXIMUM REVERSE CURRENT		MAXIMUM ZENER CURRENT
	MIN	NOM	MAX	I_{ZT}	$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$		$I_R @ V_R$		I_{ZM}
	V	V	V	mA	Ω	Ω	mA	μA	V	mA
1N957B	6.460	6.8	7.140	18.5	4.5	700	1.00	150	5.2	47
1N958B	7.125	7.5	7.875	16.5	5.5	700	0.50	75	5.7	42
1N959B	7.790	8.2	8.610	15.0	6.5	700	0.50	50	6.2	38
1N960B	8.645	9.1	9.555	14.0	7.5	700	0.50	25	6.9	35
1N961B	9.500	10	10.50	12.5	8.5	700	0.25	10	7.6	32
1N962B	10.45	11	11.55	11.5	9.5	700	0.25	5.0	8.4	28
1N963B	11.40	12	12.60	10.5	11.5	700	0.25	5.0	9.1	26
1N964B	12.35	13	13.65	9.5	13.0	700	0.25	5.0	9.9	24
1N965B	14.25	15	15.75	8.5	16.0	700	0.25	5.0	11.4	21
1N966B	15.20	16	16.80	7.8	17.0	700	0.25	5.0	12.2	19
1N967B	17.10	18	18.90	7.0	21.0	750	0.25	5.0	13.7	17
1N968B	19.00	20	21.00	6.2	25.0	750	0.25	5.0	15.2	15
1N969B	20.90	22	23.10	5.6	29.0	750	0.25	5.0	16.7	14
1N970B	22.80	24	25.20	5.2	33.0	750	0.25	5.0	18.2	13
1N971B	25.65	27	28.35	4.6	41.0	750	0.25	5.0	20.6	11
1N972B	28.50	30	31.50	4.2	49.0	1000	0.25	5.0	22.8	10
1N973B	31.35	33	34.65	3.8	58.0	1000	0.25	5.0	25.1	9.2
1N974B	34.20	36	37.80	3.4	70.0	1000	0.25	5.0	27.4	8.5
1N975B	37.05	39	40.95	3.2	80.0	1000	0.25	5.0	29.7	7.8
1N976B	40.85	43	45.15	3.0	93.0	1500	0.25	5.0	32.7	7.0
1N977B	44.65	47	49.35	2.7	105	1500	0.25	5.0	35.8	6.4
1N978B	48.45	51	53.55	2.5	125	2000	0.25	5.0	38.8	5.9
1N979B	53.20	56	58.80	2.2	150	2000	0.25	5.0	42.6	5.4
1N980B	58.90	62	65.10	2.0	185	2000	0.25	5.0	47.1	4.9
1N981B	64.60	68	71.40	1.8	230	2000	0.25	5.0	51.7	4.5
1N982B	71.25	75	78.75	1.7	270	2000	0.25	5.0	56.0	4.0

R1 (27-October 2011)

1N957B THRU 1N992B

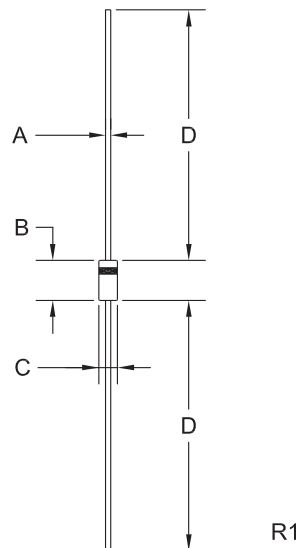
SILICON ZENER DIODE
6.8 VOLTS THRU 200 VOLTS
500mW, 5% TOLERANCE



ELECTRICAL CHARACTERISTICS - Continued: ($T_A=25^\circ\text{C}$) $V_F=1.5\text{V MAX @ } I_F=200\text{mA}$ (for all types)

TYPE	ZENER VOLTAGE V _Z @ I _{ZT}			TEST CURRENT	MAXIMUM ZENER IMPEDANCE			MAXIMUM REVERSE CURRENT		MAXIMUM ZENER CURRENT
	MIN	NOM	MAX	I _{ZT}	Z _{ZT} @ I _{ZT}	Z _{ZK} @ I _{ZK}	I _R @ V _R		I _{ZM}	
	V	V	V	mA	Ω	Ω	μA	V	mA	
1N983B	77.90	82	86.10	1.5	330	3000	0.25	5.0	62.2	3.7
1N984B	86.45	91	95.55	1.4	400	3000	0.25	5.0	69.2	3.3
1N985B	95.00	100	105.0	1.3	500	3000	0.25	5.0	76.0	3.0
1N986B	104.5	110	115.5	1.1	750	4000	0.25	5.0	83.6	2.7
1N987B	114.0	120	126.0	1.0	900	4500	0.25	5.0	91.2	2.5
1N988B	123.5	130	136.5	0.95	1100	5000	0.25	5.0	98.8	2.3
1N989B	142.5	150	157.5	0.85	1500	6000	0.25	5.0	114.0	2.0
1N990B	152.0	160	168.0	0.80	1700	6500	0.25	5.0	121.6	1.9
1N991B	171.0	180	189.0	0.68	2200	7100	0.25	5.0	136.8	1.7
1N992B	190.0	200	210.0	0.65	2500	8000	0.25	5.0	152.0	1.5

DO-35 CASE - MECHANICAL OUTLINE



SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.018	0.022	0.46	0.56
B	0.120	0.200	3.05	5.08
C	0.060	0.090	1.52	2.29
D	1.000	-	25.40	-

DO-35 (REV: R1)

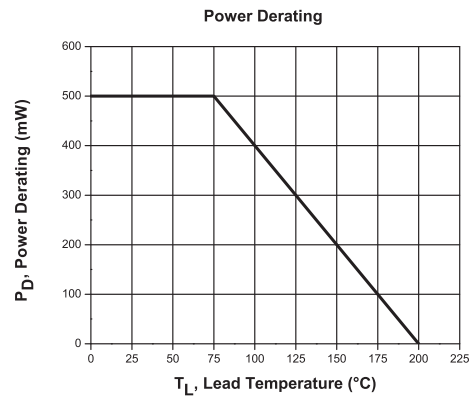
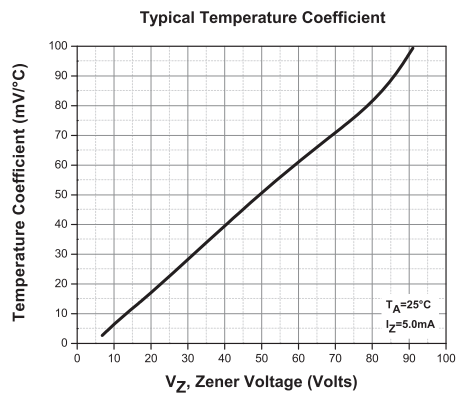
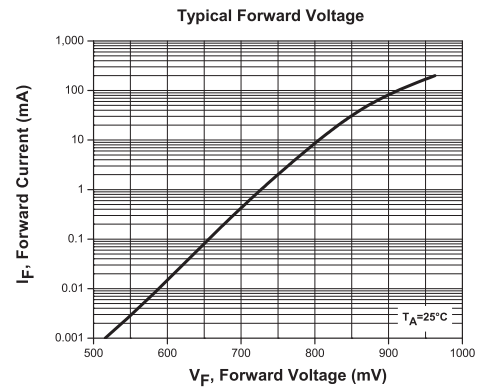
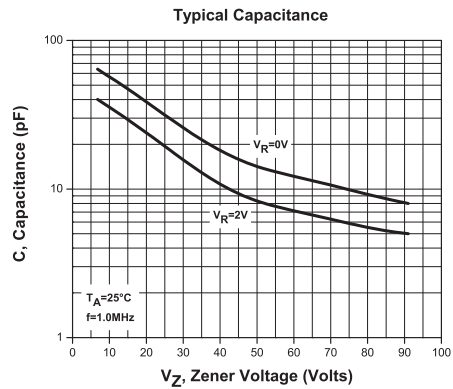
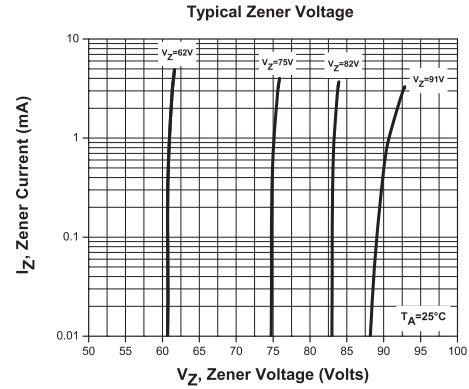
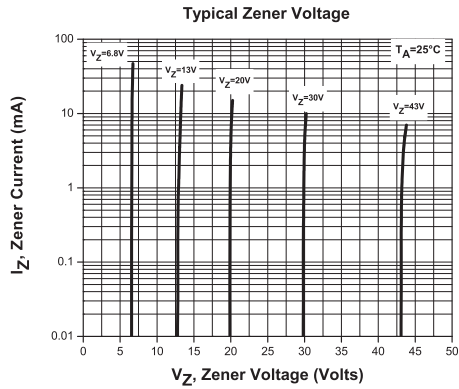
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TYPICAL ELECTRICAL CHARACTERISTICS



R1 (27-October 2011)

OUTSTANDING SUPPORT AND SUPERIOR SERVICES



PRODUCT SUPPORT

Central's operations team provides the highest level of support to insure product is delivered on-time.

- Supply management (Customer portals)
- Inventory bonding
- Consolidated shipping options
- Custom bar coding for shipments
- Custom product packing

DESIGNER SUPPORT/SERVICES

Central's applications engineering team is ready to discuss your design challenges. Just ask.

- Free quick ship samples (2nd day air)
- Online technical data and parametric search
- SPICE models
- Custom electrical curves
- Environmental regulation compliance
- Customer specific screening
- Up-screening capabilities
- Special wafer diffusions
- PbSn plating options
- Package details
- Application notes
- Application and design sample kits
- Custom product and package development

REQUESTING PRODUCT PLATING

1. If requesting Tin/Lead plated devices, add the suffix " TIN/LEAD" to the part number when ordering (example: 2N2222A TIN/LEAD).
2. If requesting Lead (Pb) Free plated devices, add the suffix " PBFREE" to the part number when ordering (example: 2N2222A PBFREE).

CONTACT US

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For the latest version of Central Semiconductor's **LIMITATIONS AND DAMAGES DISCLAIMER**, which is part of Central's Standard Terms and Conditions of sale, visit: www.centrasemi.com/terms



<http://www.centrasemi.com>

Product End of Life Notification

PDN ID:	PDN01046
Notification Date:	8/19/16
Last Buy Date:	2/19/17
Last Shipment Date	8/19/17

Summary: The 1N979B through 1N992B, 0.5 watt Zener diodes in the DO-35 case, are discontinued and now classified as End of Life (EOL).

Although Central Semiconductor Corp. makes every effort to continue to produce devices that have been proclaimed EOL (End of Life) by various manufacturers, it is an accepted industry practice to discontinue certain devices when customer demand falls below a minimum level of sustainability. Accordingly, the following product(s) have been transitioned to End of Life status as part of Central's Product Management Process. Any replacement product will be noted below. The effective date for placing the last purchase order will be six(6) months from the date of this notice and twelve(12) months from the notice date for final shipments; this may be extended if inventory is available.

Central Part Number	Replacement
1N979B BK	N/A
1N982B BK	N/A
1N984B BK	N/A
1N986B BK	N/A
1N987B BK	N/A
1N988B BK	N/A
1N988B TR	N/A
1N990B BK	N/A
1N991B BK	N/A
1N991B TR	N/A
1N992B BK	N/A

Central would be happy to assist you by providing additional information or technical data to help locate an alternate source if we have no replacement available. Please email your requests to engineering@centrasemi.com.

DISCLAIMER: This End of Life (EOL) notification is in accordance with JEDEC standard JESD48 - Product Discontinuance. Central Semiconductor Corp. will make every effort to offer life-time buy (LTB) opportunities and/or offer replacement devices to existing customers for discontinued devices, however, one or both may not be possible for all devices. Please contact your local Central Semiconductor sales representative for LTB opportunities/additional information.