1N957B THRU 1N992B

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

DO-35 CASE

Central Semiconductor Corp.

www.centralsemi.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.

MARKING: Devices shall either be marked with the prefix 'C' followed by the full part number or by the marking code in the Electrical Characteristics Table.

MAXIMUM RATINGS: (T_L=75°C)	**SYMBOL**		**UNITS**
Power Dissipation	P_D	500	mW
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +200	°C
V_Z Tolerance: Part number with "B" suffix		±5	%
V_Z Tolerance: Part number with "C" suffix		±2	%
V_Z Tolerance: Part number with "D" suffix		±1	%

ELECTRICAL CHARACTERISTICS: (T_A=25°C) V_F=1.5V MAX @ I_F=200mA (for all types)

TYPE	ZENER VOLTAGE V_Z @ I_{ZT}			TEST CURRENT	MAXIMUM ZENER IMPEDANCE			MAXIMUM REVERSE CURRENT		MAXIMUM ZENER CURRENT	MARKING CODE
	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	C957B
1N958B	7.125	7.5	7.875	16.5	5.5	700	0.50	75	5.7	42	C958B
1N959B	7.790	8.2	8.610	15.0	6.5	700	0.50	50	6.2	38	C959B
1N960B	8.645	9.1	9.555	14.0	7.5	700	0.50	25	6.9	35	C960B
1N961B	9.500	10	10.50	12.5	8.5	700	0.25	10	7.6	32	C961B
1N962B	10.45	11	11.55	11.5	9.5	700	0.25	5.0	8.4	28	C962B
1N963B	11.40	12	12.60	10.5	11.5	700	0.25	5.0	9.1	26	C963B
1N964B	12.35	13	13.65	9.5	13.0	700	0.25	5.0	9.9	24	C964B
1N965B	14.25	15	15.75	8.5	16.0	700	0.25	5.0	11.4	21	C965B
1N966B	15.20	16	16.80	7.8	17.0	700	0.25	5.0	12.2	19	C966B
1N967B	17.10	18	18.90	7.0	21.0	750	0.25	5.0	13.7	17	C967B
1N968B	19.00	20	21.00	6.2	25.0	750	0.25	5.0	15.2	15	C968B
1N969B	20.90	22	23.10	5.6	29.0	750	0.25	5.0	16.7	14	C969B
1N970B	22.80	24	25.20	5.2	33.0	750	0.25	5.0	18.2	13	C970B
1N971B	25.65	27	28.35	4.6	41.0	750	0.25	5.0	20.6	11	C971B
1N972B	28.50	30	31.50	4.2	49.0	1000	0.25	5.0	22.8	10	C972B
1N973B	31.35	33	34.65	3.8	58.0	1000	0.25	5.0	25.1	9.2	C973B
1N974B	34.20	36	37.80	3.4	70.0	1000	0.25	5.0	27.4	8.5	C974B
1N975B	37.05	39	40.95	3.2	80.0	1000	0.25	5.0	29.7	7.8	C975B
1N976B	40.85	43	45.15	3.0	93.0	1500	0.25	5.0	32.7	7.0	C976B
1N977B	44.65	47	49.35	2.7	105	1500	0.25	5.0	35.8	6.4	C977B
1N978B	48.45	51	53.55	2.5	125	2000	0.25	5.0	38.8	5.9	C978B
1N979B	53.20	56	58.80	2.2	150	2000	0.25	5.0	42.6	5.4	C979B
1N980B	58.90	62	65.10	2.0	185	2000	0.25	5.0	47.1	4.9	C980B
1N981B	64.60	68	71.40	1.8	230	2000	0.25	5.0	51.7	4.5	C981B
1N982B	71.25	75	78.75	1.7	270	2000	0.25	5.0	56.0	4.0	C982B

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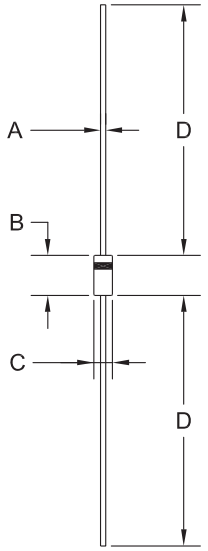
ELECTRICAL CHARACTERISTICS - Continued: (T_A=25°C) V_F=1.5V MAX @ I_F=200mA (for all types)

TYPE	ZENER VOLTAGE V_Z @ I_{ZT}			TEST CURRENT	MAXIMUM ZENER IMPEDANCE			MAXIMUM REVERSE CURRENT		MAXIMUM ZENER CURRENT	MARKING CODE
	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	
1N983B	77.90	82	86.10	1.5	330	3000	0.25	5.0	62.2	3.7	C983B
1N984B	86.45	91	95.55	1.4	400	3000	0.25	5.0	69.2	3.3	C984B
1N985B	95.00	100	105.0	1.3	500	3000	0.25	5.0	76.0	3.0	C985B
1N986B	104.5	110	115.5	1.1	750	4000	0.25	5.0	83.6	2.7	C986B
1N987B	114.0	120	126.0	1.0	900	4500	0.25	5.0	91.2	2.5	C987B
1N988B	123.5	130	136.5	0.95	1100	5000	0.25	5.0	98.8	2.3	C988B
1N989B	142.5	150	157.5	0.85	1500	6000	0.25	5.0	114.0	2.0	C989B
1N990B	152.0	160	168.0	0.80	1700	6500	0.25	5.0	121.6	1.9	C990B
1N991B	171.0	180	189.0	0.68	2200	7100	0.25	5.0	136.8	1.7	C991B
1N992B	190.0	200	210.0	0.65	2500	8000	0.25	5.0	152.0	1.5	C992B

DO-35 CASE - MECHANICAL OUTLINE



R1

DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	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)

R2 (6-December 2019)

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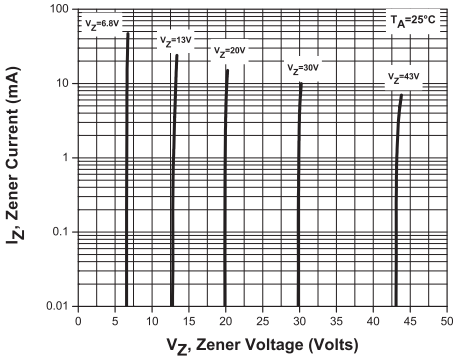
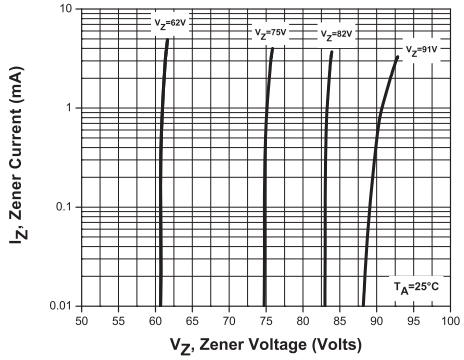
ELECTRICAL CHARACTERISTICS

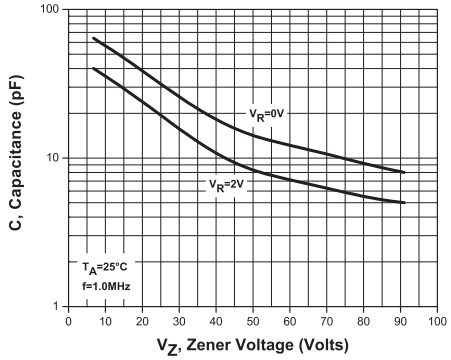
Typical Zener Voltage



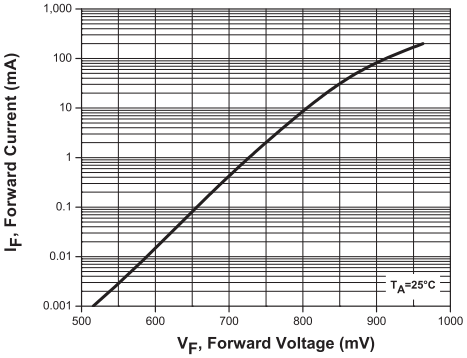
Typical Zener Voltage



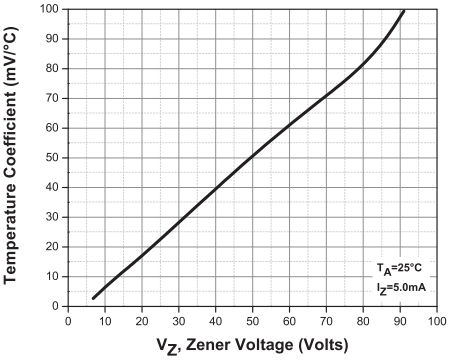
Typical Capacitance



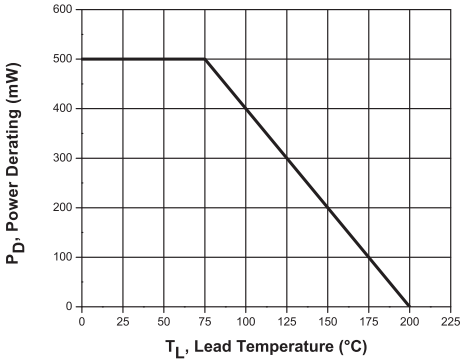
Typical Forward Voltage



Typical Temperature Coefficient



Power Derating



R2 (6-December 2019)

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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Worldwide Distributors:
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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.centralsemi.com/terms

http://www.centralsemi.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@centralsemi.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.