1N5985B THRU 1N6020B

SILICON ZENER DIODES
500mW, 2.4 THRU 68 VOLTS
5% TOLERANCE



DO-35 CASE

Central Semiconductor Corp.

www.centralsemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR 1N5985B series are high quality silicon Zener diodes designed for low leakage 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=50°C)	**SYMBOL**		**UNITS**
Power Dissipation	P_D	500	mW
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +200	°C

ELECTRICAL CHARACTERISTICS: (T_L=30°C) V_F=1.5V MAX @ I_F=100mA (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	
1N5985B	2.280	2.4	2.520	5.0	100	1.8K	0.25	100	1.0	208	C5985B
1N5986B	2.565	2.7	2.835	5.0	100	1.9K	0.25	75	1.0	185	C5986B
1N5987B	2.850	3.0	3.150	5.0	95	2.0K	0.25	50	1.0	167	C5987B
1N5988B	3.135	3.3	3.465	5.0	95	2.2K	0.25	25	1.0	152	C5988B
1N5989B	3.420	3.6	3.780	5.0	90	2.3K	0.25	15	1.0	139	C5989B
1N5990B	3.705	3.9	4.095	5.0	90	2.4K	0.25	10	1.0	128	C5990B
1N5991B	4.085	4.3	4.515	5.0	88	2.5K	0.25	5.0	1.0	116	C5991B
1N5992B	4.465	4.7	4.935	5.0	70	2.2K	0.25	3.0	1.5	106	C5992B
1N5993B	4.845	5.1	5.355	5.0	50	2.05K	0.25	2.0	2.0	98	C5993B
1N5994B	5.320	5.6	5.880	5.0	25	1.8K	0.25	2.0	3.0	89	C5994B
1N5995B	5.890	6.2	6.510	5.0	10	1.3K	0.25	1.0	4.0	81	C5995B
1N5996B	6.460	6.8	7.140	5.0	8.0	750	0.25	1.0	5.2	74	C5996B
1N5997B	7.125	7.5	7.875	5.0	7.0	600	0.25	0.5	6.0	67	C5997B
1N5998B	7.790	8.2	8.610	5.0	7.0	600	0.25	0.5	6.5	61	C5998B
1N5999B	8.645	9.1	9.555	5.0	10	600	0.25	0.1	7.0	55	C5999B
1N6000B	9.500	10	10.50	5.0	15	600	0.25	0.1	8.0	50	C6000B
1N6001B	10.45	11	11.55	5.0	18	600	0.25	0.1	8.4	45	C6001B
1N6002B	11.40	12	12.60	5.0	22	600	0.25	0.1	9.1	42	C6002B
1N6003B	12.35	13	13.65	5.0	25	600	0.25	0.1	9.9	38	C6003B
1N6004B	14.25	15	15.75	5.0	32	600	0.25	0.1	11	33	C6004B
1N6005B	15.20	16	16.80	5.0	36	600	0.25	0.1	12	31	C6005B
1N6006B	17.10	18	18.90	5.0	42	600	0.25	0.1	14	28	C6006B
1N6007B	19.00	20	21.00	5.0	48	600	0.25	0.1	15	25	C6007B
1N6008B	20.90	22	23.10	5.0	55	600	0.25	0.1	17	23	C6008B
1N6009B	22.80	24	25.20	5.0	62	600	0.25	0.1	18	21	C6009B
1N6010B	25.65	27	28.35	5.0	70	600	0.25	0.1	21	19	C6010B

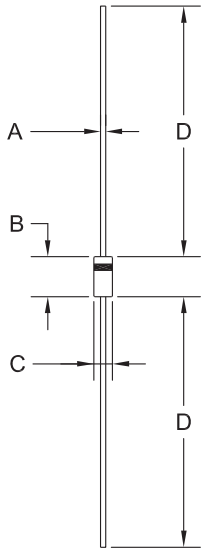
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ELECTRICAL CHARACTERISTICS - Continued: (T_L=30°C) V_F=1.5V MAX @ I_F=100mA (for all types)

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	
1N6011B	28.50	30	31.50	5.0	78	600	0.25	100	23	17	C6011B
1N6012B	31.35	33	34.65	5.0	88	700	0.25	100	25	15	C6012B
1N6013B	34.20	36	37.80	5.0	95	700	0.25	100	27	14	C6013B
1N6014B	37.05	39	40.95	5.0	130	800	0.25	100	30	13	C6014B
1N6015B	40.85	43	45.15	2.0	150	900	0.25	100	33	12	C6015B
1N6016B	44.65	47	49.35	2.0	170	1.0K	0.25	100	36	11	C6016B
1N6017B	48.45	51	53.55	2.0	180	1.3K	0.25	100	39	9.8	C6017B
1N6018B	53.20	56	58.80	2.0	200	1.4K	0.25	100	43	8.9	C6018B
1N6019B	58.90	62	65.10	2.0	225	1.4K	0.25	100	47	8.0	C6019B
1N6020B	64.60	68	71.40	2.0	240	1.6K	0.25	100	52	7.4	C6020B

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)

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.centralsemi.com/terms

http://www.centralsemi.com

Product End of Life Notification

PDN ID:	PDN01174
Notification Date:	3/31/21
Last Buy Date:	9/30/21
Last Shipment Date	3/31/22

Summary:The following axial lead Zener diodes are discontinued and now classified as of Life (EOL).

Although Central Semiconductor Corp. makes every effort to continue to produce devices that have been proclaimed EOL (End of Life) by other 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 ongoing Product Management Process. Any replacement products are noted below. The effective date for placing last purchase orders will be six (6) months from the date of this notice and twelve (12) months from the notice date for final shipments, and minimum order quantities may apply. The last purchase and shipment dates may be extended if inventory is available.

*** All Plating types (PBFREE,TIN/LEAD) for each item listed are included in this notice.**

Central Part Number	Replacement
1N5930C BK	N/A
1N5986B BK	N/A
1N5993B TR	N/A
1N5993C BK	N/A
1N5993C TR	N/A
1N5993D BK	N/A
1N5994B TR	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.