

1N5985B THRU 1N6020B

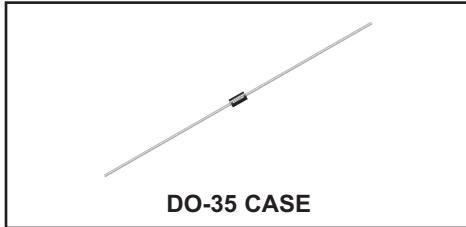
SILICON ZENER DIODES  
500mW, 2.4 THRU 68 VOLTS  
5% TOLERANCE



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**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR 1N5985B series are high quality silicon Zener diodes designed for low leakage applications.



DO-35 CASE

**MAXIMUM RATINGS:** ( $T_L=50^\circ\text{C}$ )

Power Dissipation

Operating and Storage Junction Temperature

**SYMBOL**

$P_D$

$T_J, T_{stg}$

500

-65 to +200

**UNITS**

mW

$^\circ\text{C}$

**ELECTRICAL CHARACTERISTICS:** ( $T_L=30^\circ\text{C}$ )  $V_F=1.5\text{V MAX @ } I_F=100\text{mA}$  (for all types)

TYPE	ZENER VOLTAGE $V_Z @ I_{ZT}$			TEST CURRENT $I_{ZT}$ mA	MAXIMUM ZENER IMPEDANCE			MAXIMUM REVERSE CURRENT		MAXIMUM ZENER CURRENT $I_{ZM}$ mA
	MIN	NOM	MAX		$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$	$I_R @ V_R$	$V$		
	V	V	V		$\Omega$	$\Omega$			$\mu\text{A}$	
1N5985B	2.280	2.4	2.520	5.0	100	1.8K	0.25	100	1.0	208
1N5986B	2.565	2.7	2.835	5.0	100	1.9K	0.25	75	1.0	185
1N5987B	2.850	3.0	3.150	5.0	95	2.0K	0.25	50	1.0	167
1N5988B	3.135	3.3	3.465	5.0	95	2.2K	0.25	25	1.0	152
1N5989B	3.420	3.6	3.780	5.0	90	2.3K	0.25	15	1.0	139
1N5990B	3.705	3.9	4.095	5.0	90	2.4K	0.25	10	1.0	128
1N5991B	4.085	4.3	4.515	5.0	88	2.5K	0.25	5.0	1.0	116
1N5992B	4.465	4.7	4.935	5.0	70	2.2K	0.25	3.0	1.5	106
1N5993B	4.845	5.1	5.355	5.0	50	2.05K	0.25	2.0	2.0	98
1N5994B	5.320	5.6	5.880	5.0	25	1.8K	0.25	2.0	3.0	89
1N5995B	5.890	6.2	6.510	5.0	10	1.3K	0.25	1.0	4.0	81
1N5996B	6.460	6.8	7.140	5.0	8.0	750	0.25	1.0	5.2	74
1N5997B	7.125	7.5	7.875	5.0	7.0	600	0.25	0.5	6.0	67
1N5998B	7.790	8.2	8.610	5.0	7.0	600	0.25	0.5	6.5	61
1N5999B	8.645	9.1	9.555	5.0	10	600	0.25	0.1	7.0	55
1N6000B	9.500	10	10.50	5.0	15	600	0.25	0.1	8.0	50
1N6001B	10.45	11	11.55	5.0	18	600	0.25	0.1	8.4	45
1N6002B	11.40	12	12.60	5.0	22	600	0.25	0.1	9.1	42
1N6003B	12.35	13	13.65	5.0	25	600	0.25	0.1	9.9	38
1N6004B	14.25	15	15.75	5.0	32	600	0.25	0.1	11	33
1N6005B	15.20	16	16.80	5.0	36	600	0.25	0.1	12	31
1N6006B	17.10	18	18.90	5.0	42	600	0.25	0.1	14	28
1N6007B	19.00	20	21.00	5.0	48	600	0.25	0.1	15	25
1N6008B	20.90	22	23.10	5.0	55	600	0.25	0.1	17	23
1N6009B	22.80	24	25.20	5.0	62	600	0.25	0.1	18	21
1N6010B	25.65	27	28.35	5.0	70	600	0.25	0.1	21	19

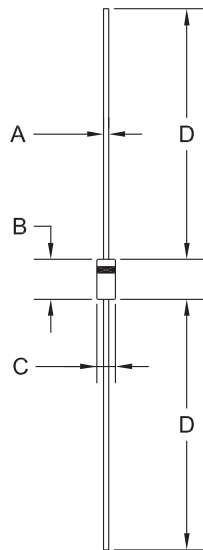
R1 (9-August 2016)

1N5985B THRU 1N6020B  
 SILICON ZENER DIODES  
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TYPE	ZENER VOLTAGE $V_Z @ I_{ZT}$			TEST CURRENT	MAXIMUM ZENER IMPEDANCE			MAXIMUM REVERSE CURRENT		MAXIMUM ZENER CURRENT
	MIN	NOM	MAX	$I_{ZT}$	$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$	$I_R @ V_R$	$I_R @ V_R$	$I_{ZM}$	
	V	V	V	mA	$\Omega$	$\Omega$	$\mu A$	V	mA	
1N6011B	28.50	30	31.50	5.0	78	600	0.25	100	23	17
1N6012B	31.35	33	34.65	5.0	88	700	0.25	100	25	15
1N6013B	34.20	36	37.80	5.0	95	700	0.25	100	27	14
1N6014B	37.05	39	40.95	5.0	130	800	0.25	100	30	13
1N6015B	40.85	43	45.15	2.0	150	900	0.25	100	33	12
1N6016B	44.65	47	49.35	2.0	170	1.0K	0.25	100	36	11
1N6017B	48.45	51	53.55	2.0	180	1.3K	0.25	100	39	9.8
1N6018B	53.20	56	58.80	2.0	200	1.4K	0.25	100	43	8.9
1N6019B	58.90	62	65.10	2.0	225	1.4K	0.25	100	47	8.0
1N6020B	64.60	68	71.40	2.0	240	1.6K	0.25	100	52	7.4

DO-35 CASE - MECHANICAL OUTLINE



R1

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)

R1 (9-August 2016)



## OUTSTANDING SUPPORT AND SUPERIOR SERVICES

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### 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

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### DESIGNER SUPPORT/SERVICES

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

- Free quick ship samples (2<sup>nd</sup> day air)
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- 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

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### 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).

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