

1N5913B THRU 1N5956B
SILICON ZENER DIODE
1.5 WATT, 3.3 THRU 200 VOLTS



www.centralemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR 1N5913B series silicon Zener diode is a high quality voltage regulator designed for use in automotive, industrial, commercial, entertainment and computer applications.

MARKING: FULL PART NUMBER

MAXIMUM RATINGS:

Power Dissipation ($T_L=75^\circ\text{C}$)
Operating and Storage 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}

1.5
-65 to +200
 ± 5
 ± 2
 ± 1

UNITS

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

ELECTRICAL CHARACTERISTICS: ($T_L=30^\circ\text{C}$) $V_F=1.5\text{V MAX @ } I_F=200\text{mA}$ (for all types)

TYPE	ZENER VOLTAGE $V_Z @ I_{ZT}$			TEST CURRENT	MAXIMUM ZENER IMPEDANCE			MAXIMUM REVERSE CURRENT		MAXIMUM DC 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	
1N5913B	3.135	3.3	3.465	113.6	10	500	1.0	100	1.0	454
1N5914B	3.420	3.6	3.780	104.2	9.0	500	1.0	75	1.0	416
1N5915B	3.705	3.9	4.095	96.1	7.5	500	1.0	25	1.0	384
1N5916B	4.085	4.3	4.515	87.2	6.0	500	1.0	5.0	1.0	348
1N5917B	4.465	4.7	4.935	79.8	5.0	500	1.0	5.0	1.5	319
1N5918B	4.845	5.1	5.355	73.5	4.0	350	1.0	5.0	2.0	294
1N5919B	5.320	5.6	5.880	66.9	2.0	250	1.0	5.0	3.0	267
1N5920B	5.890	6.2	6.510	60.5	2.0	200	1.0	5.0	4.0	241
1N5921B	6.460	6.8	7.140	55.1	3.0	200	1.0	5.0	5.2	220
1N5922B	7.130	7.5	7.880	50	3.0	400	0.5	5.0	6.0	200
1N5923B	7.790	8.2	8.610	45.7	4.0	400	0.5	5.0	6.5	182
1N5924B	8.650	9.1	9.560	41.2	4.0	500	0.5	5.0	7.0	164
1N5925B	9.500	10	10.50	37.5	5.0	500	0.25	5.0	8.0	150
1N5926B	10.45	11	11.55	34.1	6.0	550	0.25	1.0	8.4	136
1N5927B	11.40	12	12.60	31.2	7.0	550	0.25	1.0	9.1	125
1N5928B	12.35	13	13.65	28.8	7.0	550	0.25	1.0	9.9	115
1N5929B	14.25	15	15.75	25	9.0	600	0.25	1.0	11.4	100
1N5930B	15.20	16	16.80	23.4	10	600	0.25	1.0	12.2	93
1N5931B	17.10	18	18.90	20.8	12	650	0.25	1.0	13.7	83
1N5932B	19.00	20	21.00	18.7	14	650	0.25	1.0	15.2	75
1N5933B	20.90	22	23.10	17	18	650	0.25	1.0	16.7	68

R3 (8-March 2012)

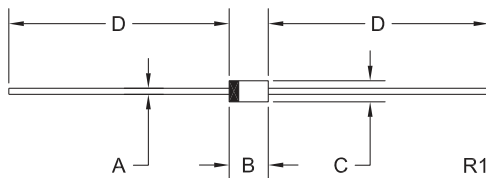
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ELECTRICAL CHARACTERISTICS - Continued: ($T_L=30^\circ\text{C}$) $V_F=1.5\text{V MAX @ } I_F=200\text{mA}$ (for all types)

TYPE	ZENER VOLTAGE $V_Z @ I_{ZT}$			TEST CURRENT	MAXIMUM ZENER IMPEDANCE			MAXIMUM REVERSE CURRENT		MAXIMUM DC 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	
1N5934B	22.80	24	25.20	15.6	19	700	0.25	1.0	18.2	62
1N5935B	25.65	27	28.35	13.9	23	700	0.25	1.0	20.6	55
1N5936B	28.50	30	31.50	12.5	26	750	0.25	1.0	22.8	50
1N5937B	31.35	33	34.65	11.4	33	800	0.25	1.0	25.1	45
1N5938B	34.20	36	37.80	10.4	38	850	0.25	1.0	27.4	41
1N5939B	37.05	39	40.95	9.6	45	900	0.25	1.0	29.7	38
1N5940B	40.85	43	45.15	8.7	53	950	0.25	1.0	32.7	34
1N5941B	44.65	47	49.35	8.0	67	1000	0.25	1.0	35.8	31
1N5942B	48.45	51	53.55	7.3	70	1100	0.25	1.0	38.8	29
1N5943B	53.20	56	58.80	6.7	86	1300	0.25	1.0	42.6	26
1N5944B	58.90	62	65.10	6.0	100	1500	0.25	1.0	47.1	24
1N5945B	64.60	68	71.40	5.5	120	1700	0.25	1.0	51.2	22
1N5946B	71.25	75	78.75	5.0	140	2000	0.25	1.0	56.0	20
1N5947B	77.90	82	86.10	4.6	160	2500	0.25	1.0	62.2	18
1N5948B	86.45	91	95.55	4.1	200	3000	0.25	1.0	69.2	16
1N5949B	95.00	100	105.0	3.7	250	3100	0.25	1.0	76.0	15
1N5950B	104.5	110	115.5	3.4	300	4000	0.25	1.0	83.6	13
1N5951B	114.0	120	126.0	3.1	380	4500	0.25	1.0	91.2	12
1N5952B	123.5	130	136.5	2.9	450	5000	0.25	1.0	98.8	11
1N5953B	142.5	150	157.5	2.5	600	6000	0.25	1.0	114.0	10
1N5954B	152.0	160	168.0	2.3	700	6500	0.25	1.0	121.6	9.0
1N5955B	171.0	180	189.0	2.1	900	7000	0.25	1.0	136.8	8.0
1N5956B	190.0	200	210.0	1.9	1200	8000	0.25	1.0	152.0	7.0

DO-41 CASE - MECHANICAL OUTLINE



SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.028	0.034	0.71	0.86
B	0.160	0.205	4.06	5.21
C	0.080	0.107	2.03	2.72
D	1.000	-	25.40	-

DO-41 (REV: R1)

R3 (8-March 2012)

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

Corporate Headquarters & Customer Support Team

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Hauppauge, NY 11788 USA
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Worldwide Field Representatives:
www.centrasemi.com/wwreps

Worldwide Distributors:
www.centrasemi.com/wwdistributors

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.centralsemi.com>

Product End of Life Notification

PDN ID:	PDN01048
Notification Date:	8/19/16
Last Buy Date:	2/19/17
Last Shipment Date	8/19/17

Summary: The 1N5913B through 1N5916B, 1.5 watt Zener diodes in the DO-41 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.

<u>Central Part Number</u>	<u>Replacement</u>
1N5913B BK	N/A
1N5913B TR	N/A
1N5914B TR	N/A
1N5915B BK	N/A
1N5915B TR	N/A
1N5916B BK	N/A
1N5916B 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.



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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.**

<u>Central Part Number</u>	<u>Replacement</u>
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

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Product End of Life Notification

PDN ID:	PDN01154
Notification Date:	5/11/20
Last Buy Date:	11/11/20
Last Shipment Date	5/11/21

Summary: The 1N5917B zener diode series is 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 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.

<u>Central Part Number</u>	<u>Replacement</u>
1N5917B BK	N/A, Stock Only
1N5917B TR	N/A, Stock Only
1N5918B BK	N/A, Stock Only
1N5918B TR	N/A, Stock Only
1N5919B BK	N/A, Stock Only
1N5919B TR	N/A, Stock Only
1N5920B BK	N/A, Stock Only
1N5920B TR	N/A, Stock Only
1N5921B BK	N/A, Stock Only
1N5921B TR	N/A, Stock Only
1N5922B BK	N/A, Stock Only
1N5922B TR	N/A, Stock Only
1N5923B BK	N/A, Stock Only
1N5923B TR	N/A, Stock Only
1N5924B BK	N/A, Stock Only
1N5924B TR	N/A, Stock Only
1N5925B BK	N/A, Stock Only
1N5925B TR	N/A, Stock Only
1N5926B BK	N/A, Stock Only
1N5926B TR	N/A, Stock Only
1N5927B BK	N/A, Stock Only
1N5927B TR	N/A, Stock Only
1N5928B BK	N/A, Stock Only
1N5928B TR	N/A, Stock Only
1N5929B BK	N/A, Stock Only
1N5929B TR	N/A, Stock Only
1N5930B BK	N/A, Stock Only
1N5930B TR	N/A, Stock Only
1N5931B BK	N/A, Stock Only
1N5931B TR	N/A, Stock Only
1N5932B BK	N/A, Stock Only
1N5932B TR	N/A, Stock Only
1N5933B BK	N/A, Stock Only
1N5933B TR	N/A, Stock Only
1N5934B BK	N/A, Stock Only
1N5934B TR	N/A, Stock Only
1N5935B BK	N/A, Stock Only
1N5935B TR	N/A, Stock Only

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Product End of Life Notification

PDN ID:	PDN01154
Notification Date:	5/11/20
Last Buy Date:	11/11/20
Last Shipment Date	5/11/21

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Central Part Number	Replacement
1N5936B BK	N/A, Stock Only
1N5936B TR	N/A, Stock Only
1N5937B BK	N/A, Stock Only
1N5937B TR	N/A, Stock Only
1N5938B BK	N/A, Stock Only
1N5938B TR	N/A, Stock Only
1N5939B BK	N/A, Stock Only
1N5939B TR	N/A, Stock Only
1N5940B BK	N/A, Stock Only
1N5940B TR	N/A, Stock Only
1N5941B BK	N/A, Stock Only
1N5941B TR	N/A, Stock Only
1N5942B BK	N/A, Stock Only
1N5942B TR	N/A, Stock Only
1N5943B BK	N/A, Stock Only
1N5943B TR	N/A, Stock Only
1N5944B TR	N/A, Stock Only
1N5945B BK	N/A, Stock Only
1N5945B TR	N/A, Stock Only
1N5946B BK	N/A, Stock Only
1N5946B TR	N/A, Stock Only
1N5947B TR	N/A, Stock Only
1N5948B BK	N/A, Stock Only
1N5948B TR	N/A, Stock Only
1N5949B BK	N/A, Stock Only
1N5949B TR	N/A, Stock Only
1N5950B BK	N/A, Stock Only
1N5950B TR	N/A, Stock Only
1N5951B BK	N/A, Stock Only
1N5951B TR	N/A, Stock Only
1N5952B BK	N/A, Stock Only
1N5952B TR	N/A, Stock Only
1N5953B BK	N/A, Stock Only
1N5953B TR	N/A, Stock Only
1N5954B BK	N/A, Stock Only
1N5954B TR	N/A, Stock Only
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