



**THE DATASHEET OF  
1N5933B TR**



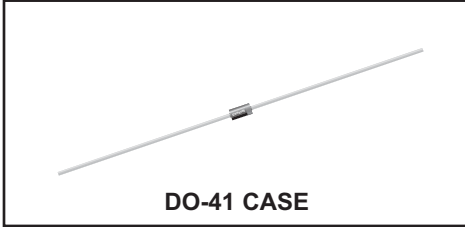
**1N5913B THRU 1N5956B**  
**SILICON ZENER DIODE**  
**1.5 WATT, 3.3 THRU 200 VOLTS**



[www.centrasemi.com](http://www.centrasemi.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.



**DO-41 CASE**

**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**

$P_D$   
 $T_J, T_{stg}$

**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	$\Omega$	$\Omega$	$\mu\text{A}$	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

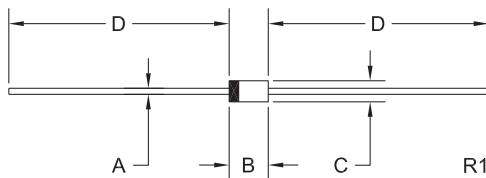
**1N5913B THRU 1N5956B**  
**SILICON ZENER DIODE**  
**1.5 WATT, 3.3 THRU 200 VOLTS**



**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	$\Omega$	$\Omega$	$\mu\text{A}$	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 (2<sup>nd</sup> 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

Central Semiconductor Corp.  
145 Adams Avenue  
Hauppauge, NY 11788 USA  
Main Tel: (631) 435-1110  
Main Fax: (631) 435-1824  
Support Team Fax: (631) 435-3388  
[www.centrasemi.com](http://www.centrasemi.com)

**Worldwide Field Representatives:**  
[www.centrasemi.com/wwreps](http://www.centrasemi.com/wwreps)

**Worldwide Distributors:**  
[www.centrasemi.com/wwdistributors](http://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.centrasemi.com/terms)



<http://www.centralsemi.com>

# Product End of Life Notification

<b>PDN ID:</b>	PDN01048
<b>Notification Date:</b>	8/19/16
<b>Last Buy Date:</b>	2/19/17
<b>Last Shipment Date</b>	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.

<b>Central Part Number</b>	<b>Replacement</b>
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](mailto: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.

## Looking for pricing, stock, or lifecycle information?

Click below to explore more details on WIN SOURCE:

- [View 1N5933B TR on WIN SOURCE](#)
- [Central Semiconductor Corp Information](#)

## Optimize Your Supply Chain with WIN SOURCE Solutions

- ✓ Global Sourcing Solution
- ✓ Obsolete Management
- ✓ Cost Control Management
- ✓ Shortage Management
- ✓ Alternative Solution
- ✓ Excess Inventory Management