

1N3305B THRU 1N3350B

SILICON ZENER DIODES
6.8 VOLT THRU 200 VOLT
50W, 5% TOLERANCE



DO-5 CASE



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR 1N3305B series types are silicon Zener diodes manufactured in a hermetically sealed metal case, designed for high reliability industrial applications. Also available in reverse polarity connection (replace "B" suffix with "RB" suffix in part number - ex. 1N3305RB).

MARKING: FULL PART NUMBER

MAXIMUM RATINGS: ($T_C=75^\circ\text{C}$)

Power Dissipation
Operating and Storage Junction Temperature
Thermal Resistance

SYMBOL

P_D 50
 T_J, T_{stg} -65 to +175
 θ_{JC} 2.0

UNITS

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

ELECTRICAL CHARACTERISTICS: ($T_C=30^\circ\text{C}$ unless otherwise noted) $V_F=1.5\text{V MAX @ } I_F=10\text{A}$

TYPE	ZENERVOLTAGE $V_Z @ I_{ZT}$			TEST CURRENT I_{ZT} mA	MAXIMUM ZENER IMPEDANCE			MAXIMUM REVERSE CURRENT		MAXIMUM ZENER CURRENT ($T_C=75^\circ\text{C MAX}$) I_{ZM} mA	TYPICAL TEMPERATURE COEFFICIENT θ_{V_Z} %/°C
	MIN V	NOM V	MAX V		$Z_{ZT} @ I_{ZT}$ Ω	$Z_{ZK} @ I_{ZK}$ Ω	$I_R @ V_R$ μA	V_R V			
1N3305B	6.460	6.8	7.140	1850	0.2	70	5.0	150	4.5	6600	0.040
1N3306B	7.125	7.5	7.875	1700	0.3	70	5.0	75	5.0	5900	0.045
1N3307B	7.790	8.2	8.610	1500	0.4	70	5.0	50	5.4	5200	0.048
1N3308B	8.645	9.1	9.555	1370	0.5	70	5.0	25	6.1	4800	0.051
1N3309B	9.500	10	10.50	1200	0.6	80	5.0	10	6.7	4300	0.055
1N3310B	10.45	11	11.55	1100	0.8	80	5.0	5.0	8.4	3900	0.060
1N3311B	11.40	12	12.60	1000	1.0	80	5.0	5.0	9.1	3600	0.065
1N3312B	12.35	13	13.65	960	1.1	80	5.0	5.0	9.9	3300	0.065
1N3313B	13.30	14	14.70	890	1.2	80	5.0	5.0	10.6	3000	0.070
1N3314B	14.25	15	15.75	830	1.4	80	5.0	5.0	11.4	2800	0.070
1N3315B	15.20	16	16.80	780	1.6	80	5.0	5.0	12.2	2650	0.070
1N3316B	16.15	17	17.85	740	1.8	80	5.0	5.0	13.0	2500	0.075
1N3317B	17.10	18	18.90	700	2.0	80	5.0	5.0	13.7	2300	0.075
1N3318B	18.05	19	19.95	660	2.2	80	5.0	5.0	14.4	2200	0.075
1N3319B	19.00	20	21.00	630	2.4	80	5.0	5.0	15.2	2100	0.075
1N3320B	20.90	22	23.10	570	2.5	80	5.0	5.0	16.7	1900	0.080
1N3321B	22.80	24	25.20	520	2.6	80	5.0	5.0	18.2	1750	0.080
1N3322B	23.75	25	26.25	500	2.7	90	5.0	5.0	19.0	1550	0.080
1N3323B	25.65	27	28.35	460	2.8	90	5.0	5.0	20.6	1500	0.085
1N3324B	28.50	30	31.50	420	3.0	90	5.0	5.0	22.8	1400	0.085
1N3325B	31.35	33	34.65	380	3.2	90	5.0	5.0	25.1	1300	0.085
1N3326B	34.20	36	37.80	350	3.5	90	5.0	5.0	27.4	1150	0.085
1N3327B	37.05	39	40.95	320	4.0	90	5.0	5.0	29.7	1050	0.090
1N3328B	40.85	43	45.15	290	4.5	90	5.0	5.0	32.7	975	0.090
1N3329B	42.75	45	47.25	280	4.5	100	5.0	5.0	34.2	930	0.090
1N3330B	44.65	47	49.35	270	5.0	100	5.0	5.0	35.8	880	0.090

1N3305B THRU 1N3350B

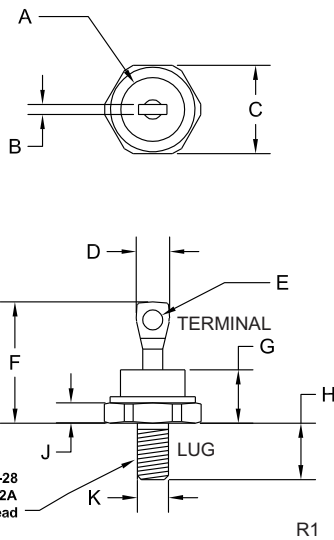
SILICON ZENER DIODES
6.8 VOLT THRU 200 VOLT
50W, 5% TOLERANCE



ELECTRICAL CHARACTERISTICS - Cont'd: ($T_C=30^\circ\text{C}$ unless otherwise noted) $V_F=1.5\text{V MAX}$ @ $I_F=10\text{A}$ (for all types)

TYPE	ZENERVOLTAGE V_Z @ I_{ZT}			TEST CURRENT	MAXIMUM ZENER IMPEDANCE			MAXIMUM REVERSE CURRENT		MAXIMUM ZENER CURRENT ($T_C=75^\circ\text{C MAX}$)	TYPICAL TEMPERATURE COEFFICIENT
	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	$\%/\text{C}$	
1N3331B	47.50	50	52.50	250	5.0	100	5.0	5.0	38.0	830	0.090
1N3332B	48.45	51	53.55	245	5.2	100	5.0	5.0	38.8	810	0.090
1N3333B	49.40	52	54.60	240	5.5	100	5.0	5.0	39.5	790	0.090
1N3334B	53.20	56	58.80	220	6.0	110	5.0	5.0	42.6	740	0.090
1N3335B	58.90	62	65.10	200	7.0	120	5.0	5.0	47.1	660	0.090
1N3336B	64.60	68	71.40	180	8.0	140	5.0	5.0	51.7	600	0.090
1N3337B	71.25	75	78.75	170	9.0	150	5.0	5.0	56.0	540	0.090
1N3338B	77.90	82	86.10	150	11	160	5.0	5.0	62.2	490	0.090
1N3339B	86.45	91	95.55	140	15	180	5.0	5.0	69.2	420	0.090
1N3340B	95.00	100	105.00	120	20	200	5.0	5.0	76.0	400	0.090
1N3341B	99.75	105	110.25	120	25	210	5.0	5.0	79.8	380	0.095
1N3342B	104.50	110	115.50	110	30	220	5.0	5.0	83.6	365	0.095
1N3343B	114.00	120	126.00	100	40	240	5.0	5.0	91.2	335	0.095
1N3344B	123.50	130	136.50	95	50	275	5.0	5.0	98.8	310	0.095
1N3345B	133.00	140	147.00	90	60	325	5.0	5.0	106.4	290	0.095
1N3346B	142.50	150	157.50	85	75	400	5.0	5.0	114.0	270	0.095
1N3347B	152.00	160	168.00	80	80	450	5.0	5.0	121.6	250	0.095
1N3348B	166.25	175	183.75	70	85	500	5.0	5.0	133.0	230	0.095
1N3349B	171.00	180	189.00	68	90	525	5.0	5.0	136.8	220	0.095
1N3350B	190.00	200	210.00	65	100	600	5.0	5.0	152.0	200	0.100

DO-5 CASE - MECHANICAL OUTLINE



LEAD CODE:
Terminal) Cathode
Lug) Anode

LEAD CODE:
(Reverse Polarity)
Terminal) Anode
Lug) Cathode

SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	-	0.667	-	16.94
B	-	0.080	-	2.03
C	0.667	0.687	16.94	17.45
D	-	0.375	-	9.53
E	0.140	0.175	3.56	4.45
F	-	1.000	-	25.40
G	-	0.450	-	11.43
H	0.422	0.453	10.72	11.51
J	0.115	0.200	2.92	5.08
K	-	0.227	-	5.76

DO-5 (REV: R1)

R3 (21-March 2013)

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:
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>

Product End of Life Notification

PDN ID:	PDN01151
Notification Date:	6/08/20
Last Buy Date:	Stock Only
Last Shipment Date	Stock Only

Please be advised that Central Semiconductor must immediately discontinue the product(s) listed in the attached PDN notice. We are unable to accept any further orders for these products **unless** we have available inventory on hand.

You may have purchased one or more of the products listed. Please do not hesitate to contact your local Central Semiconductor sales representative with any questions or needs you may have. Central regrets any inconvenience this may cause.

Sincerely,

Central Semiconductor Corp.

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.

Product End of Life Notification

PDN ID:	PDN01151
Notification Date:	6/08/20
Last Buy Date:	Stock Only
Last Shipment Date	Stock Only

Summary: All Zener diodes in DO-4, DO-5 and TO-3 packages 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 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>
1N2813B	N/A, Stock Only
1N2818B	N/A, Stock Only
1N2820B	N/A, Stock Only
1N2838B	N/A, Stock Only
1N2979C	N/A, Stock Only
1N3324RB	N/A, Stock Only

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.

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