

**1N3305B THRU 1N3350B**

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



**DO-5 CASE**



[www.centrasemi.com](http://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  
 $\theta_{JC}$  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 $\theta_{V_Z}$ %/°C
	MIN V	NOM V	MAX V		$Z_{ZT} @ I_{ZT}$ $\Omega$	$Z_{ZK} @ I_{ZK}$ $\Omega$	$I_R @ V_R$ mA	$\mu\text{A}$	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

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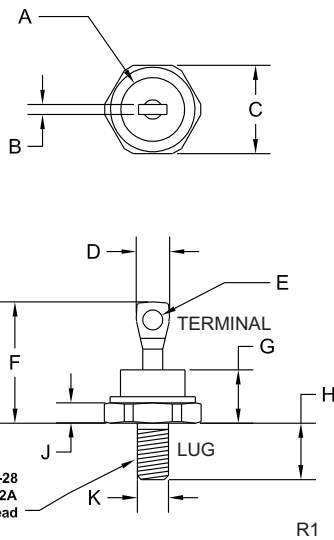
SILICON ZENER DIODES  
6.8 VOLT THRU 200 VOLT  
50W, 5% TOLERANCE



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	$\Omega$	$\Omega$	mA	$\mu\text{A}$	V	mA	$\%/^\circ\text{C}$
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)