

# Central<sup>TM</sup> Semiconductor Corp.

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Manufacturers of World Class Discrete Semiconductors  
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**CZ5342B THRU CZ5388B**

**6.8 VOLTS THRU 200 VOLTS  
5.0W, 5% TOLERANCE**

**DO-201 CASE**

## DESCRIPTION:

The CENTRAL SEMICONDUCTOR CZ5342B Series Silicon Zener Diode is a high quality voltage regulator designed for use in industrial, commercial, entertainment and computer applications.

## ABSOLUTE MAXIMUM RATINGS:

Power Dissipation (@ $T_A=25^\circ\text{C}$ )

Operating and Storage Temperature

## SYMBOL

$P_D$

$T_J, T_{stg}$

5.0

-65 to +150

## UNITS

W

$^\circ\text{C}$

**ELECTRICAL CHARACTERISTICS:** ( $T_A=25^\circ\text{C}$ ),  $V_F=1.2\text{V MAX @ } I_F=1.0\text{A}$  FOR ALL TYPES.

Type No.	Zener Voltage $V_Z @ I_{ZT}$			Test Current $I_{ZT}$	Maximum Zener Impedance			Maximum Reverse Current		Maximum Surge Current (Note 1) $I_r$	Maximum Voltage Regulation (Note 2) $\Delta V_Z$	Maximum Regulator Current $I_{ZM}$	Marking Code
	MIN	NOM	MAX		$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$	$I_R @ V_R$						
	Volts	Volts	Volts				$\Omega$	$\Omega$	mA				
CZ5342B	6.460	6.8	7.140	175	1.0	200	1.0	100	5.2	11.5	0.25	700	CZ5342B
CZ5343B	7.125	7.5	7.875	175	1.5	200	1.0	100	5.7	10.7	0.25	630	CZ5343B
CZ5344B	7.790	8.2	8.610	150	1.5	200	1.0	100	6.2	10.0	0.20	580	CZ5344B
CZ5345B	8.265	8.7	9.135	150	2.0	200	1.0	100	6.6	7.5	0.20	545	CZ5345B
CZ5346B	8.645	9.1	9.555	150	2.0	150	1.0	7.5	6.9	9.2	0.22	520	CZ5346B
CZ5347B	9.500	10	10.50	125	2.0	125	1.0	5.0	7.6	8.6	0.22	475	CZ5347B
CZ5348B	10.45	11	11.55	125	2.5	125	1.0	5.0	8.4	8.0	0.25	430	CZ5348B
CZ5349B	11.40	12	12.60	100	2.5	125	1.0	2.0	9.1	7.5	0.25	395	CZ5349B
CZ5350B	12.35	13	13.65	100	2.5	100	1.0	1.0	9.9	7.0	0.25	365	CZ5350B
CZ5351B	13.30	14	14.70	100	2.5	75	1.0	1.0	10.6	6.7	0.25	340	CZ5351B
CZ5352B	14.25	15	15.75	75	2.5	75	1.0	1.0	11.5	6.3	0.25	315	CZ5352B
CZ5353B	15.20	16	16.80	75	2.5	75	1.0	1.0	12.2	6.00	0.30	295	CZ5353B
CZ5354B	16.15	17	17.85	70	2.5	75	1.0	0.5	12.9	5.8	0.35	280	CZ5354B
CZ5355B	17.10	18	18.90	65	2.5	75	1.0	0.5	13.7	5.5	0.40	264	CZ5355B
CZ5356B	18.05	19	19.95	65	3.0	75	1.0	0.5	14.4	5.3	0.40	250	CZ5356B
CZ5357B	19.00	20	21.00	65	3.0	75	1.0	0.5	15.2	5.1	0.40	237	CZ5357B
CZ5358B	20.90	22	23.10	50	3.5	75	1.0	0.5	16.7	4.7	0.45	216	CZ5358B
CZ5359B	22.80	24	25.20	50	3.5	100	1.0	0.5	18.2	4.4	0.55	198	CZ5359B
CZ5360B	23.75	25	26.25	50	4.0	110	1.0	0.5	19.0	4.3	0.55	190	CZ5360B
CZ5361B	25.65	27	28.35	50	5.0	120	1.0	0.5	20.6	4.1	0.60	176	CZ5361B
CZ5362B	26.60	28	29.40	50	6.0	130	1.0	0.5	21.2	3.9	0.60	170	CZ5362B
CZ5363B	28.50	30	31.50	40	8.0	140	1.0	0.5	22.8	3.7	0.60	158	CZ5363B
CZ5364B	31.35	33	34.65	40	10	150	1.0	0.5	25.1	3.5	0.65	144	CZ5364B
CZ5365B	34.20	36	37.80	30	11	160	1.0	0.5	27.4	3.3	0.65	132	CZ5365B

(CONTINUED ON REVERSE SIDE)

R2

# CZ5342B SERIES

# AXIAL LEAD ZENER DIODE

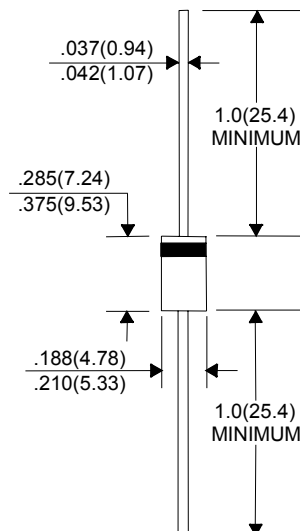
**ELECTRICAL CHARACTERISTICS:** ( $T_A=25^{\circ}C$ ),  $V_F=1.2V$  MAX @  $I_F=1.0A$  FOR ALL TYPES.

TYPE NO.	Zener Voltage $V_Z @ I_{ZT}$			Test Current	Maximum Zener Impedance			Maximum Reverse Current		Maximum Surge Current (Note 1)	Maximum Voltage Regulation (Note 2)	Maximum Regulator Current	Marking Code
	MIN	NOM	MAX		$I_{ZT}$	$Z_{ZT}@I_{ZT}$	$Z_{ZK} @ I_{ZK}$	$I_R @ V_R$					
	Volts	Volts	Volts		mA	$\Omega$	$\Omega$	$\mu A$	Volts				
CZ5366B	37.05	39	40.95	30	14	170	1.0	0.5	29.7	3.1	0.65	122	CZ5366B
CZ5367B	40.85	43	45.15	30	20	190	1.0	0.5	32.7	2.8	0.70	110	CZ5367B
CZ5368B	44.65	47	49.35	25	25	210	1.0	0.5	35.8	2.7	0.80	100	CZ5368B
CZ5369B	48.45	51	53.55	25	27	230	1.0	0.5	38.8	2.5	0.90	93.0	CZ5369B
CZ5370B	53.20	56	58.80	20	35	280	1.0	0.5	42.6	2.3	1.00	86.0	CZ5370B
CZ5371B	57.00	60	63.00	20	40	350	1.0	0.5	45.5	2.2	1.20	79.0	CZ5371B
CZ5372B	58.90	62	65.10	20	42	400	1.0	0.5	47.1	2.1	1.35	76.0	CZ5372B
CZ5373B	64.60	68	71.40	20	44	500	1.0	0.5	51.7	2.0	1.50	70.0	CZ5373B
CZ5374B	71.25	75	78.75	20	45	620	1.0	0.5	56.0	1.9	1.60	63.0	CZ5374B
CZ5375B	77.90	82	86.10	15	65	720	1.0	0.5	62.2	1.8	1.80	58.0	CZ5375B
CZ5376B	82.65	87	91.35	15	75	760	1.0	0.5	66.0	1.7	2.00	54.5	CZ5376B
CZ5377B	86.45	91	95.55	15	75	760	1.0	0.5	69.2	1.6	2.20	52.5	CZ5377B
CZ5378B	95.00	100	105.0	12	90	800	1.0	0.5	76.0	1.5	2.50	47.5	CZ5378B
CZ5379B	104.5	110	115.5	12	125	1000	1.0	0.5	83.6	1.4	2.50	43.0	CZ5379B
CZ5380B	114.0	120	126.0	10	170	1150	1.0	0.5	91.2	1.3	2.50	39.5	CZ5380B
CZ5381B	123.5	130	136.5	10	190	1250	1.0	0.5	98.8	1.2	2.50	36.6	CZ5381B
CZ5382B	133.0	140	147.0	8.0	230	1500	1.0	0.5	106	1.2	2.50	34.0	CZ5382B
CZ5383B	142.5	150	157.5	8.0	330	1500	1.0	0.5	114	1.1	3.00	31.6	CZ5383B
CZ5384B	152.0	160	168.0	8.0	350	1650	1.0	0.5	122	1.1	3.00	29.4	CZ5384B
CZ5385B	161.5	170	178.5	8.0	380	1750	1.0	0.5	129	1.0	3.00	28.0	CZ5385B
CZ5386B	171.0	180	189.0	5.0	430	1750	1.0	0.5	137	1.0	4.00	26.4	CZ5386B
CZ5387B	180.5	190	199.5	5.0	450	1850	1.0	0.5	144	0.9	5.00	25.0	CZ5387B
CZ5388B	190.0	200	210.0	5.0	480	1850	1.0	0.5	152	0.9	5.00	23.6	CZ5388B

Note 1. Surge Current ( $i_r$ ) - Maximum allowable peak, non-recurrent square wave current (PW=8.3ms).

Note 2. Voltage Regulation ( $\Delta V_Z$ ) -  $V_Z$  Measurements are made at 10% and then at 50% of the  $I_Z$  max value listed in the electrical characteristics table. The test current time duration for each  $V_Z$  measurement is 380 $\mu$ s ( $T_A=25^{\circ}C$ ).

### DO-201 CASE - MECHANICAL OUTLINE



All Dimensions in Inches (mm).

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