CZ5333B THRU CZ5388B

5.0W SILICON ZENER DIODE
3.3 VOLTS THRU 200 VOLTS
5% TOLERANCE



DO-201 CASE

Central™
Semiconductor Corp.

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CZ5333B Series Silicon Zener Diode is a high quality voltage regulator designed for use in industrial, commercial, entertainment and computer applications.

MARKING CODE: FULL PART NUMBER

MAXIMUM RATINGS: (T_A=25°C)

	SYMBOL		UNITS
Power Dissipation	P_D	5.0	W
Operating and Storage Temperature	T_J, T_{stg}	-65 to +200	°C

ELECTRICAL CHARACTERISTICS: (T_A=25°C) V_F=1.2V MAX @ I_F=1.0A FOR ALL TYPES.

TYPE	ZENER VOLTAGE V_Z @ I_{ZT}			TEST CURRENT	MAXIMUM ZENER IMPEDANCE			MAXIMUM REVERSE CURRENT		MAX SURGE CURRENT (NOTE 1)	MAX VOLTAGE REGULATION (NOTE 2)	MAX REGULATOR CURRENT
	MIN	NOM	MAX	I_{ZT}	Z_{ZT}@I_{ZT}	Z_{ZT} @ I_{ZK}		I_R @ V_R		i_r	ΔV_Z	I_{ZM}
	V	V	V	mA	Ω	Ω	mA	μA	V	A	V	mA
CZ5333B	3.135	3.3	3.465	380	3.0	400	1.0	300	1.0	20	0.85	1440
CZ5334B	3.420	3.6	3.780	350	2.5	500	1.0	150	1.0	18.7	0.80	1320
CZ5335B	3.705	3.9	4.095	320	2.0	500	1.0	50	1.0	17.6	0.54	1220
CZ5336B	4.085	4.3	4.515	290	2.0	500	1.0	10	1.0	16.4	0.49	1100
CZ5337B	4.465	4.7	4.935	260	2.0	450	1.0	10	1.0	15.3	0.44	1010
CZ5338B	4.845	5.1	5.355	240	1.5	400	1.0	10	1.0	14.4	0.39	930
CZ5339B	5.320	5.6	5.880	220	1.0	400	1.0	10	2.0	13.4	0.25	865
CZ5340B	5.700	6.0	6.300	200	1.0	300	1.0	10	3.0	12.7	0.25	790
CZ5341B	5.890	6.2	6.510	200	1.0	200	1.0	10	3.0	12.4	0.25	765
CZ5342B	6.460	6.8	7.140	175	1.0	200	1.0	100	5.2	11.5	0.25	700
CZ5343B	7.125	7.5	7.875	175	1.5	200	1.0	100	5.7	10.7	0.25	630
CZ5344B	7.790	8.2	8.610	150	1.5	200	1.0	100	6.2	10.0	0.20	580
CZ5345B	8.265	8.7	9.135	150	2.0	200	1.0	100	6.6	7.5	0.20	545
CZ5346B	8.645	9.1	9.555	150	2.0	150	1.0	7.5	6.9	9.2	0.22	520
CZ5347B	9.500	10	10.50	125	2.0	125	1.0	5.0	7.6	8.6	0.22	475
CZ5348B	10.45	11	11.55	125	2.5	125	1.0	5.0	8.4	8.0	0.25	430
CZ5349B	11.40	12	12.60	100	2.5	125	1.0	2.0	9.1	7.5	0.25	395
CZ5350B	12.35	13	13.65	100	2.5	100	1.0	1.0	9.9	7.0	0.25	365
CZ5351B	13.30	14	14.70	100	2.5	75	1.0	1.0	10.6	6.7	0.25	340
CZ5352B	14.25	15	15.75	75	2.5	75	1.0	1.0	11.5	6.3	0.25	315
CZ5353B	15.20	16	16.80	75	2.5	75	1.0	1.0	12.2	6.0	0.30	295
CZ5354B	16.15	17	17.85	70	2.5	75	1.0	0.5	12.9	5.8	0.35	280
CZ5355B	17.10	18	18.90	65	2.5	75	1.0	0.5	13.7	5.5	0.40	264
CZ5356B	18.05	19	19.95	65	3.0	75	1.0	0.5	14.4	5.3	0.40	250
CZ5357B	19.00	20	21.00	65	3.0	75	1.0	0.5	15.2	5.1	0.40	237
CZ5358B	20.90	22	23.10	50	3.5	75	1.0	0.5	16.7	4.7	0.45	216
CZ5359B	22.80	24	25.20	50	3.5	100	1.0	0.5	18.2	4.4	0.55	198
CZ5360B	23.75	25	26.25	50	4.0	110	1.0	0.5	19.0	4.3	0.55	190

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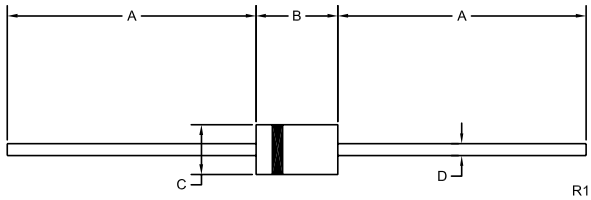
TYPE	ZENER VOLTAGE V_Z @ I_{ZT}			TEST CURRENT	MAXIMUM ZENER IMPEDANCE			MAXIMUM REVERSE CURRENT		MAX SURGE CURRENT (NOTE 1)	MAX VOLTAGE REGULATION (NOTE 2)	MAX REGULATOR CURRENT
	MIN	NOM	MAX	I_{ZT}	Z_{ZT}@ I_{ZT}	Z_{ZT} @ I_{ZK}		I_R @ V_R		i_r	ΔV_Z	I_{ZM}
	V	V	V	mA	Ω	Ω	mA	μA	V	A	V	mA
CZ5361B	25.65	27	28.35	50	5.0	120	1.0	0.5	20.6	4.1	0.60	176
CZ5362B	26.60	28	29.40	50	6.0	130	1.0	0.5	21.2	3.9	0.60	170
CZ5363B	28.50	30	31.50	40	8.0	140	1.0	0.5	22.8	3.7	0.60	158
CZ5364B	31.35	33	34.65	40	10	150	1.0	0.5	25.1	3.5	0.65	144
CZ5365B	34.20	36	37.80	30	11	160	1.0	0.5	27.4	3.3	0.65	132
CZ5366B	37.05	39	40.95	30	14	170	1.0	0.5	29.7	3.1	0.65	122
CZ5367B	40.85	43	45.15	30	20	190	1.0	0.5	32.7	2.8	0.70	110
CZ5368B	44.65	47	49.35	25	25	210	1.0	0.5	35.8	2.7	0.80	100
CZ5369B	48.45	51	53.55	25	27	230	1.0	0.5	38.8	2.5	0.90	93.0
CZ5370B	53.20	56	58.80	20	35	280	1.0	0.5	42.6	2.3	1.00	86.0
CZ5371B	57.00	60	63.00	20	40	350	1.0	0.5	45.5	2.2	1.20	79.0
CZ5372B	58.90	62	65.10	20	42	400	1.0	0.5	47.1	2.1	1.35	76.0
CZ5373B	64.60	68	71.40	20	44	500	1.0	0.5	51.7	2.0	1.50	70.0
CZ5374B	71.25	75	78.75	20	45	620	1.0	0.5	56.0	1.9	1.60	63.0
CZ5375B	77.90	82	86.10	15	65	720	1.0	0.5	62.2	1.8	1.80	58.0
CZ5376B	82.65	87	91.35	15	75	760	1.0	0.5	66.0	1.7	2.00	54.5
CZ5377B	86.45	91	95.55	15	75	760	1.0	0.5	69.2	1.6	2.20	52.5
CZ5378B	95.00	100	105.0	12	90	800	1.0	0.5	76.0	1.5	2.50	47.5
CZ5379B	104.5	110	115.5	12	125	1000	1.0	0.5	83.6	1.4	2.50	43.0
CZ5380B	114.0	120	126.0	10	170	1150	1.0	0.5	91.2	1.3	2.50	39.5
CZ5381B	123.5	130	136.5	10	190	1250	1.0	0.5	98.8	1.2	2.50	36.6
CZ5382B	133.0	140	147.0	8.0	230	1500	1.0	0.5	106	1.2	2.50	34.0
CZ5383B	142.5	150	157.5	8.0	330	1500	1.0	0.5	114	1.1	3.00	31.6
CZ5384B	152.0	160	168.0	8.0	350	1650	1.0	0.5	122	1.1	3.00	29.4
CZ5385B	161.5	170	178.5	8.0	380	1750	1.0	0.5	129	1.0	3.00	28.0
CZ5386B	171.0	180	189.0	5.0	430	1750	1.0	0.5	137	1.0	4.00	26.4
CZ5387B	180.5	190	199.5	5.0	450	1850	1.0	0.5	144	0.9	5.00	25.0
CZ5388B	190.0	200	210.0	5.0	480	1850	1.0	0.5	152	0.9	5.00	23.6

Note 1. Surge Current (i_r) - Maximum allowable peak, non recurrent square wave current (PW=8.3ms).
Note 2. Voltage Regulation (ΔV_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 380us (T_A=25ºC)

DO-201 CASE - MECHANICAL OUTLINE



DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	MIN	MAX	MIN	MAX
A	1.000	-	25.40	-
B	0.285	0.375	7.24	9.53
C	0.188	0.210	4.78	5.33
D	0.037	0.042	0.94	1.07

DO-201(REV: R1)

R5 (6-December 2005)