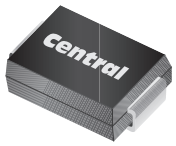
CMZ5334B THRU CMZ5388B

SURFACE MOUNT SILICON HIGH POWER ZENER DIODES 5.0 WATT, 3.6 THRU 200 VOLT ±5% TOLERANCE



SMC CASE

Central Semiconductor Corp.

www.centralsemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMZ5334B series silicon Zener diode is a high quality voltage regulator, manufactured in an epoxy molded surface mount package, and designed for use in industrial, commercial, entertainment and computer applications.

MARKING: SEE MARKING CODE ON ELECTRICAL CHARACTERISTICS TABLE

MAXIMUM RATINGS: (T_A=25°C)	**SYMBOL**		**UNITS**
Power Dissipation (T_L=75°C)	P_D	5.0	W
Power Dissipation (Note 1)	P_D	2.0	W
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +200	°C
Thermal Resistance	Θ_{JL}	25	°C/W
Thermal Resistance (Note 1)	Θ_{JA}	87.5	°C/W

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		MAXIMUM SURGE CURRENT (Note 2)	MAXIMUM VOLTAGE REGULATION (Note 3)	MAXIMUM REGULATOR CURRENT (T_L=75°C)	MARKING CODE
	MIN	NOM	MAX	I_{ZT}	Z_{ZT} @ I_{ZT}	Z_{ZK} @ I_{ZK}		I_R @ V_R		i_r	ΔV_Z	I_{ZM}	
	V	V	V	mA	Ω	Ω	mA	μA	V	A	V	mA	
CMZ5334B	3.420	3.6	3.780	350	3.0	500	1.0	150	1.0	18.7	0.80	1320	C5334B
CMZ5335B	3.705	3.9	4.095	320	2.0	500	1.0	50	1.0	17.6	0.54	1220	C5335B
CMZ5336B	4.085	4.3	4.515	290	2.0	500	1.0	10	1.0	16.4	0.49	1100	C5336B
CMZ5337B	4.465	4.7	4.935	264	2.0	450	1.0	10	1.0	15.3	0.44	1010	C5337B
CMZ5338B	4.845	5.1	5.355	240	2.0	400	1.0	10	1.0	14.4	0.39	930	C5338B
CMZ5339B	5.320	5.6	5.880	220	1.0	400	1.0	10	2.0	13.4	0.25	865	C5339B
CMZ5340B	5.700	6.0	6.300	200	1.0	300	1.0	10	3.0	12.7	0.25	790	C5340B
CMZ5342B	6.460	6.8	7.140	175	1.0	200	1.0	100	5.2	11.5	0.15	700	C5342B
CMZ5343B	7.125	7.5	7.875	175	1.5	200	1.0	100	5.7	10.7	0.15	630	C5343B
CMZ5344B	7.790	8.2	8.610	150	1.5	200	1.0	100	6.2	10.0	0.20	580	C5344B
CMZ5345B	8.265	8.7	9.135	150	2.0	200	1.0	100	6.6	7.5	0.20	545	C5345B
CMZ5346B	8.645	9.1	9.555	150	2.0	150	1.0	7.5	6.9	9.2	0.22	520	C5346B
CMZ5347B	9.500	10	10.50	125	2.0	125	1.0	5.0	7.6	8.6	0.22	475	C5347B
CMZ5348B	10.45	11	11.55	125	2.5	125	1.0	5.0	8.4	8.0	0.25	430	C5348B
CMZ5349B	11.40	12	12.60	100	2.5	125	1.0	2.0	9.1	7.5	0.25	395	C5349B
CMZ5350B	12.35	13	13.65	100	2.5	100	1.0	1.0	9.9	7.0	0.25	365	C5350B
CMZ5351B	13.30	14	14.70	100	2.5	75	1.0	1.0	10.6	6.7	0.25	340	C5351B
CMZ5352B	14.25	15	15.75	75	2.5	75	1.0	1.0	11.5	6.3	0.25	315	C5352B
CMZ5353B	15.20	16	16.80	75	2.5	75	1.0	1.0	12.2	6.0	0.30	295	C5353B
CMZ5354B	16.15	17	17.85	70	2.5	75	1.0	0.5	12.9	5.8	0.35	280	C5354B
CMZ5355B	17.10	18	18.90	65	2.5	75	1.0	0.5	13.7	5.5	0.40	264	C5355B
CMZ5356B	18.05	19	19.95	65	3.0	75	1.0	0.5	14.4	5.3	0.40	250	C5356B
CMZ5357B	19.00	20	21.00	65	3.0	75	1.0	0.5	15.2	5.1	0.40	237	C5357B
CMZ5358B	20.90	22	23.10	50	3.5	75	1.0	0.5	16.7	4.7	0.45	216	C5358B

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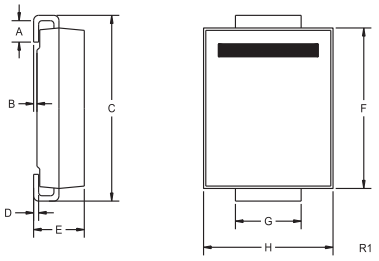
ELECTRICAL CHARACTERISTICS - Continued: (T_A=25°C) V_F=1.2V MAX @ I_F=1.0A (for all types)

TYPE	ZENER VOLTAGE V_Z @ I_{ZT}			TEST CURRENT	MAXIMUM ZENER IMPEDANCE			MAXIMUM REVERSE CURRENT		MAXIMUM SURGE CURRENT (Note 2)	MAXIMUM VOLTAGE REGULATION (Note 3)	MAXIMUM REGULATOR CURRENT (T_L=75°C)	MARKING CODE
	MIN	NOM	MAX	I_{ZT}	Z_{ZT} @ I_{ZT}	Z_{ZK} @ I_{ZK}		I_R @ V_R		i_r	ΔV_Z	I_{ZM}	
	V	V	V	mA	Ω	Ω	mA	μA	V	A	V	mA	
CMZ5359B	22.80	24	25.20	50	3.5	100	1.0	0.5	18.2	4.4	0.55	198	C5359B
CMZ5360B	23.75	25	26.25	50	4.0	110	1.0	0.5	19.0	4.3	0.55	190	C5360B
CMZ5361B	25.65	27	28.35	50	5.0	120	1.0	0.5	20.6	4.1	0.60	176	C5361B
CMZ5362B	26.60	28	29.40	50	6.0	130	1.0	0.5	21.2	3.9	0.60	170	C5362B
CMZ5363B	28.50	30	31.50	40	8.0	140	1.0	0.5	22.8	3.7	0.60	158	C5363B
CMZ5364B	31.35	33	34.65	40	10	150	1.0	0.5	25.1	3.5	0.65	144	C5364B
CMZ5365B	34.20	36	37.80	30	11	160	1.0	0.5	27.4	3.3	0.65	132	C5365B
CMZ5366B	37.05	39	40.95	30	14	170	1.0	0.5	29.7	3.1	0.65	122	C5366B
CMZ5367B	40.85	43	45.15	30	20	190	1.0	0.5	32.7	2.8	0.70	110	C5367B
CMZ5368B	44.65	47	49.35	25	25	210	1.0	0.5	35.8	2.7	0.80	100	C5368B
CMZ5369B	48.45	51	53.55	25	27	230	1.0	0.5	38.8	2.5	0.90	93.0	C5369B
CMZ5370B	53.20	56	58.80	20	35	280	1.0	0.5	42.6	2.3	1.00	86.0	C5370B
CMZ5371B	57.00	60	63.00	20	40	350	1.0	0.5	45.5	2.2	1.20	79.0	C5371B
CMZ5372B	58.90	62	65.10	20	42	400	1.0	0.5	47.1	2.1	1.35	76.0	C5372B
CMZ5373B	64.60	68	71.40	20	44	500	1.0	0.5	51.7	2.0	1.50	70.0	C5373B
CMZ5374B	71.25	75	78.75	20	45	620	1.0	0.5	56.0	1.9	1.60	63.0	C5374B
CMZ5375B	77.90	82	86.10	15	65	720	1.0	0.5	62.2	1.8	1.80	58.0	C5375B
CMZ5376B	82.65	87	91.35	15	75	760	1.0	0.5	66.0	1.7	2.00	54.5	C5376B
CMZ5377B	86.45	91	95.55	15	75	760	1.0	0.5	69.2	1.6	2.20	52.5	C5377B
CMZ5378B	95.00	100	105.0	12	90	800	1.0	0.5	76.0	1.5	2.50	47.5	C5378B
CMZ5379B	104.5	110	115.5	12	125	1000	1.0	0.5	83.6	1.4	2.50	43.0	C5379B
CMZ5380B	114.0	120	126.0	10	170	1150	1.0	0.5	91.2	1.3	2.50	39.5	C5380B
CMZ5381B	123.5	130	136.5	10	190	1250	1.0	0.5	98.8	1.2	2.50	36.6	C5381B
CMZ5382B	133.0	140	147.0	8.0	230	1500	1.0	0.5	106	1.2	2.50	34.0	C5382B
CMZ5383B	142.5	150	157.5	8.0	330	1500	1.0	0.5	114	1.1	3.00	31.6	C5383B
CMZ5384B	152.0	160	168.0	8.0	350	1650	1.0	0.5	122	1.1	3.00	29.4	C5384B
CMZ5385B	161.5	170	178.5	8.0	380	1750	1.0	0.5	129	1.0	3.00	28.0	C5385B
CMZ5386B	171.0	180	189.0	5.0	430	1750	1.0	0.5	137	1.0	4.00	26.4	C5386B
CMZ5387B	180.5	190	199.5	5.0	450	1850	1.0	0.5	144	0.9	5.00	25.0	C5387B
CMZ5388B	190.0	200	210.0	5.0	480	1850	1.0	0.5	152	0.9	5.00	23.6	C5388B

Notes: (1) Mounted on 2 inch square FR-4 PCB with minimum recommended SMC copper pad area.
(2) Surge Current (i_r) - Maximum allowable peak, non-recurrent square wave current (tp=8.3ms).
(3) 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 40±10ms (T_A=25°C).

SMC CASE - MECHANICAL OUTLINE



DIMENSIONS				
	INCHES		MILLIMETERS	
SYMBOL	MIN	MAX	MIN	MAX
A	0.030	0.060	0.76	1.52
B	0.004	0.008	0.10	0.20
C	0.305	0.320	7.75	8.13
D	0.006	0.012	0.15	0.31
E	0.079	0.103	2.00	2.62
F	0.260	0.280	6.60	7.11
G	0.108	0.124	2.75	3.15
H	0.220	0.245	5.59	6.22

SMC (REV: R1)

R10 (4-April 2013)