

CMZ5334C THRU CMZ5388C

**SURFACE MOUNT SILICON
HIGH POWER ZENER DIODES
5.0 WATT, 3.6 THRU 200 VOLT
±2% TOLERANCE**



SMC CASE



www.centrasemi.com

DESCRIPTION:

The CENTRAL SEMICONDUCTOR CMZ5334C series silicon Zener diode is a highly reliable 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)

Power Dissipation (T_L=150°C)

Power Dissipation (Note 1)

Operating and Storage Junction Temperature

Thermal Resistance

Thermal Resistance (Note 1)

SYMBOL

P _D	5.0	W
P _D	2.0	W
T _J , T _{stg}	-65 to +200	°C
Θ _{JL}	10	°C/W
Θ _{JA}	87.5	°C/W

UNITS

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 I _{ZT} mA	MAXIMUM ZENER IMPEDANCE			MAXIMUM REVERSE CURRENT		MAXIMUM SURGE CURRENT (Note 2) i _r A	MAXIMUM REGULATOR CURRENT (T _L =75°C) I _{ZM} mA	MARKING CODE
	MIN V	NOM V	MAX V		Z _{ZT} @ I _{ZT} Ω	Z _{ZK} @ I _{ZK} Ω	I _R @ V _R μA					
CMZ5334C	3.528	3.6	3.672	350	3.0	500	1.0	150	1.0	18.7	1320	C5334C
CMZ5335C	3.822	3.9	3.978	320	2.0	500	1.0	50	1.0	17.6	1220	C5335C
CMZ5336C	4.214	4.3	4.386	290	2.0	500	1.0	10	1.0	16.4	1100	C5336C
CMZ5337C	4.606	4.7	4.794	264	2.0	450	1.0	10	1.0	15.3	1010	C5337C
CMZ5338C	4.998	5.1	5.202	240	2.0	400	1.0	10	1.0	14.4	930	C5338C
CMZ5339C	5.488	5.6	5.712	220	1.0	400	1.0	10	2.0	13.4	865	C5339C
CMZ5340C	5.880	6.0	6.120	200	1.0	300	1.0	10	3.0	12.7	790	C5340C
CMZ5342C	6.664	6.8	6.936	175	1.0	200	1.0	100	5.2	11.5	700	C5342C
CMZ5343C	7.350	7.5	7.650	175	1.5	200	1.0	100	5.7	10.7	630	C5343C
CMZ5344C	8.036	8.2	8.364	150	1.5	200	1.0	100	6.2	10.0	580	C5344C
CMZ5345C	8.526	8.7	8.874	150	2.0	200	1.0	100	6.6	7.5	545	C5345C
CMZ5346C	8.918	9.1	9.282	150	2.0	150	1.0	7.5	6.9	9.2	520	C5346C
CMZ5347C	9.800	10	10.20	125	2.0	125	1.0	5.0	7.6	8.6	475	C5347C
CMZ5348C	10.78	11	11.22	125	2.5	125	1.0	5.0	8.4	8.0	430	C5348C
CMZ5349C	11.76	12	12.24	100	2.5	125	1.0	2.0	9.1	7.5	395	C5349C
CMZ5350C	12.74	13	13.26	100	2.5	100	1.0	1.0	9.9	7.0	365	C5350C
CMZ5351C	13.72	14	14.28	100	2.5	75	1.0	1.0	10.6	6.7	340	C5351C
CMZ5352C	14.70	15	15.30	75	2.5	75	1.0	1.0	11.5	6.3	315	C5352C
CMZ5353C	15.68	16	16.32	75	2.5	75	1.0	1.0	12.2	6.0	295	C5353C
CMZ5354C	16.66	17	17.34	70	2.5	75	1.0	0.5	12.9	5.8	280	C5354C
CMZ5355C	17.64	18	18.36	65	2.5	75	1.0	0.5	13.7	5.5	264	C5355C
CMZ5356C	18.62	19	19.38	65	3.0	75	1.0	0.5	14.4	5.3	250	C5356C
CMZ5357C	19.60	20	20.40	65	3.0	75	1.0	0.5	15.2	5.1	237	C5357C
CMZ5358C	21.56	22	22.44	50	3.5	75	1.0	0.5	16.7	4.7	216	C5358C

R1 (15-March 2017)

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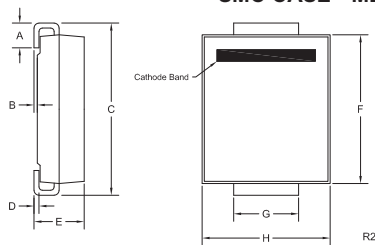


ELECTRICAL CHARACTERISTICS - Continued: ($T_A=25^\circ\text{C}$) $V_F=1.2\text{V MAX @ } I_F=1.0\text{A}$ (for all types)

TYPE	ZENER VOLTAGE $V_Z @ I_{ZT}$			TEST CURRENT I_{ZT}	MAXIMUM ZENER IMPEDANCE			MAXIMUM REVERSE CURRENT		MAXIMUM SURGE CURRENT (Note 2)	MAXIMUM REGULATOR CURRENT ($T_L=75^\circ\text{C}$)	MARKING CODE
	MIN	NOM	MAX		$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$	$I_R @ V_R$					
	V	V	V		Ω	Ω	μA	V	A			
CMZ5359C	23.52	24	24.48	50	3.5	100	1.0	0.5	18.2	4.4	198	C5359C
CMZ5360C	24.50	25	25.50	50	4.0	110	1.0	0.5	19.0	4.3	190	C5360C
CMZ5361C	26.46	27	27.54	50	5.0	120	1.0	0.5	20.6	4.1	176	C5361C
CMZ5362C	27.44	28	28.56	50	6.0	130	1.0	0.5	21.2	3.9	170	C5362C
CMZ5363C	29.40	30	30.60	40	8.0	140	1.0	0.5	22.8	3.7	158	C5363C
CMZ5364C	32.34	33	33.66	40	10	150	1.0	0.5	25.1	3.5	144	C5364C
CMZ5365C	35.28	36	36.72	30	11	160	1.0	0.5	27.4	3.3	132	C5365C
CMZ5366C	38.22	39	39.78	30	14	170	1.0	0.5	29.7	3.1	122	C5366C
CMZ5367C	42.14	43	43.86	30	20	190	1.0	0.5	32.7	2.8	110	C5367C
CMZ5368C	46.06	47	47.94	25	25	210	1.0	0.5	35.8	2.7	100	C5368C
CMZ5369C	49.98	51	52.02	25	27	230	1.0	0.5	38.8	2.5	93.0	C5369C
CMZ5370C	54.88	56	57.12	20	35	280	1.0	0.5	42.6	2.3	86.0	C5370C
CMZ5371C	58.80	60	61.20	20	40	350	1.0	0.5	45.5	2.2	79.0	C5371C
CMZ5372C	60.76	62	63.24	20	42	400	1.0	0.5	47.1	2.1	76.0	C5372C
CMZ5373C	66.64	68	69.36	20	44	500	1.0	0.5	51.7	2.0	70.0	C5373C
CMZ5374C	73.50	75	76.50	20	45	620	1.0	0.5	56.0	1.9	63.0	C5374C
CMZ5375C	80.36	82	83.64	15	65	720	1.0	0.5	62.2	1.8	58.0	C5375C
CMZ5376C	85.26	87	88.74	15	75	760	1.0	0.5	66.0	1.7	54.5	C5376C
CMZ5377C	89.18	91	92.82	15	75	760	1.0	0.5	69.2	1.6	52.5	C5377C
CMZ5378C	98.00	100	102.0	12	90	800	1.0	0.5	76.0	1.5	47.5	C5378C
CMZ5379C	107.8	110	112.2	12	125	1000	1.0	0.5	83.6	1.4	43.0	C5379C
CMZ5380C	117.6	120	122.4	10	170	1150	1.0	0.5	91.2	1.3	39.5	C5380C
CMZ5381C	127.4	130	132.6	10	190	1250	1.0	0.5	98.8	1.2	36.6	C5381C
CMZ5382C	137.2	140	142.8	8.0	230	1500	1.0	0.5	106	1.2	34.0	C5382C
CMZ5383C	147.0	150	153.0	8.0	330	1500	1.0	0.5	114	1.1	31.6	C5383C
CMZ5384C	156.8	160	163.2	8.0	350	1650	1.0	0.5	122	1.1	29.4	C5384C
CMZ5385C	166.6	170	173.4	8.0	380	1750	1.0	0.5	129	1.0	28.0	C5385C
CMZ5386C	176.4	180	183.6	5.0	430	1750	1.0	0.5	137	1.0	26.4	C5386C
CMZ5387C	186.2	190	193.8	5.0	450	1850	1.0	0.5	144	0.9	25.0	C5387C
CMZ5388C	196.0	200	204.0	5.0	480	1850	1.0	0.5	152	0.9	23.6	C5388C

Notes: (1) Mounted on 2 inch square FR-4 PCB with minimum recommended SMC copper pad area.
(2) Surge Current (I_s) - Maximum allowable peak, non-recurrent square wave current ($t_p=8.3\text{ms}$).

SMC CASE - MECHANICAL OUTLINE



SYMBOL	DIMENSIONS		DIMENSIONS	
	MIN	MAX	MIN	MAX
A	0.030	0.060	0.76	1.52
B	0.002	0.008	0.05	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	0.128	2.75	3.25
H	0.220	0.245	5.59	6.22

SMC (REV: R2)

R1 (15-March 2017)

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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