

CMZ5913C THRU CMZ5956C**SURFACE MOUNT SILICON
ZENER DIODES
1.5 WATT, 3.3 THRU 200 VOLT
± 2% TOLERANCE****SMA CASE**www.centralemi.com**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMZ5913C series 1.5 Watt surface mount silicon Zener diodes are highly reliable components designed for use in all types of commercial, industrial, entertainment, computer, and automotive applications where small size is required. The SMA case occupies 30% less board space than the SMB case.

FEATURES:

- Super miniature case
- 200 Watts of TVS power
- ± 2% Tolerance

MAXIMUM RATINGS: ($T_A=25^{\circ}\text{C}$ unless otherwise noted)Peak Forward Surge Current, $t_p=8.3\text{ms}$ Power Dissipation ($T_L=75^{\circ}\text{C}$)

Power Dissipation (Note 1)

Peak Power Dissipation, $t_p=10 \times 1000\mu\text{s}$ ($T_L<25^{\circ}\text{C}$)Peak Power Dissipation, $t_p=8 \times 20\mu\text{s}$ ($T_L<25^{\circ}\text{C}$)

Operating and Storage Junction Temperature

Thermal Resistance

Thermal Resistance (Note 1)

Note 1: Mounted on 2 inch square FR-4 PCB with minimum recommended SMA copper pad area.

SYMBOL I_{FSM} P_D P_D P_{PK} P_{PK} T_J, T_{stg} Θ_{JL} Θ_{JA}

20

1.5

0.5

200

1000

-65 to +150

50

250

UNITS

A

W

W

W

W

 $^{\circ}\text{C}$ $^{\circ}\text{C/W}$ $^{\circ}\text{C/W}$ **ELECTRICAL CHARACTERISTICS:** ($T_A=25^{\circ}\text{C}$) $V_F=1.5\text{V MAX @ } I_F=200\text{mA}$ (for all types)

TYPE	ZENER VOLTAGE $V_Z @ I_{ZT}$			TEST CURRENT	MAXIMUM ZENER IMPEDANCE			MAXIMUM REVERSE CURRENT		MAXIMUM ZENER CURRENT ($T_L=75^{\circ}\text{C}$)
	MIN	NOM	MAX	I_{ZT}	$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$		$I_R @ V_R$		
	V	V	V	mA	Ω	Ω	mA	μA	V	mA
CMZ5913C*	3.234	3.3	3.366	113.6	10	500	1.0	100	1.0	454
CMZ5914C*	3.528	3.6	3.672	104.2	9.0	500	1.0	75	1.0	416
CMZ5915C*	3.822	3.9	3.978	96.1	7.5	500	1.0	25	1.0	384
CMZ5916C*	4.214	4.3	4.386	87.2	6.0	500	1.0	5.0	1.0	348
CMZ5917C*	4.606	4.7	4.794	79.8	5.0	500	1.0	5.0	1.5	319
CMZ5918C*	4.998	5.1	5.202	73.5	4.0	350	1.0	5.0	2.0	294
CMZ5919C	5.488	5.6	5.712	66.9	2.0	250	1.0	5.0	3.0	267
CMZ5920C	6.076	6.2	6.324	60.5	2.0	200	1.0	5.0	4.0	241
CMZ5921C	6.664	6.8	6.936	55.1	2.5	200	1.0	5.0	5.2	221
CMZ5922C	7.350	7.5	7.650	50.0	3.0	400	0.5	5.0	6.0	200
CMZ5923C	8.036	8.2	8.364	45.7	3.5	400	0.5	5.0	6.5	183
CMZ5924C	8.918	9.1	9.282	41.2	4.0	500	0.5	5.0	7.0	165
CMZ5925C	9.800	10	10.20	37.5	4.5	500	0.25	5.0	8.0	150
CMZ5926C	10.78	11	11.22	34.1	5.5	550	0.25	1.0	8.4	136

*Available on special order; minimum quantity may apply; consult factory.

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CMZ5913C THRU CMZ5956C

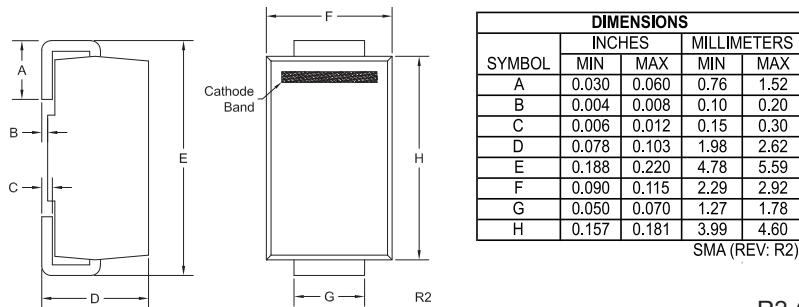
**SURFACE MOUNT SILICON
ZENER DIODES
1.5 WATT, 3.3 THRU 200 VOLT
± 2% TOLERANCE**



ELECTRICAL CHARACTERISTICS - Continued: ($T_A=25^{\circ}\text{C}$) $V_F=1.5\text{V MAX @ } I_F=200\text{mA}$ (for all types)

TYPE	ZENER VOLTAGE $V_Z @ I_{ZT}$			TEST CURRENT	MAXIMUM ZENER IMPEDANCE			MAXIMUM REVERSE CURRENT		MAXIMUM ZENER CURRENT ($T_L=75^{\circ}\text{C}$)
	MIN	NOM	MAX	I_{ZT}	$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$		$I_R @ V_R$		I_{ZM}
	V	V	V	mA	Ω	Ω	mA	μA	V	mA
CMZ5927C	11.76	12	12.24	31.2	6.5	550	0.25	1.0	9.1	125
CMZ5928C	12.74	13	13.26	28.8	7.0	550	0.25	1.0	9.9	115
CMZ5929C	14.70	15	15.30	25.0	9.0	600	0.25	1.0	11.4	100
CMZ5930C	15.68	16	16.32	23.4	10	600	0.25	1.0	12.2	94
CMZ5931C	17.64	18	18.36	20.8	12	650	0.25	1.0	13.7	83
CMZ5932C	19.60	20	20.40	18.7	14	650	0.25	1.0	15.2	75
CMZ5933C	21.56	22	22.44	17.0	17.5	650	0.25	1.0	16.7	68
CMZ5934C	23.52	24	24.48	15.6	19	700	0.25	1.0	18.2	63
CMZ5935C	26.46	27	27.54	13.9	23	700	0.25	1.0	20.6	56
CMZ5936C	29.40	30	30.60	12.5	26	750	0.25	1.0	22.8	50
CMZ5937C	32.34	33	33.66	11.4	33	800	0.25	1.0	25.1	45
CMZ5938C	35.28	36	36.72	10.4	38	850	0.25	1.0	27.4	42
CMZ5939C	38.22	39	39.78	9.6	45	900	0.25	1.0	29.7	38
CMZ5940C	42.14	43	43.86	8.7	53	950	0.25	1.0	32.7	35
CMZ5941C	46.06	47	47.94	8.0	67	1000	0.25	1.0	35.8	32
CMZ5942C	49.98	51	52.02	7.3	70	1100	0.25	1.0	38.8	29
CMZ5943C	54.88	56	57.12	6.7	86	1300	0.25	1.0	42.6	27
CMZ5944C	60.76	62	63.24	6.0	100	1500	0.25	1.0	47.1	24
CMZ5945C	66.64	68	69.36	5.5	120	1700	0.25	1.0	51.7	22
CMZ5946C	73.50	75	76.50	5.0	140	2000	0.25	1.0	56.0	20
CMZ5947C	80.36	82	83.64	4.6	160	2500	0.25	1.0	62.2	18
CMZ5948C	89.18	91	92.82	4.1	200	3000	0.25	1.0	69.2	16
CMZ5949C	98.00	100	102.0	3.7	250	3100	0.25	1.0	76.0	15
CMZ5950C	107.8	110	112.2	3.4	300	4000	0.25	1.0	83.6	13
CMZ5951C	117.6	120	122.4	3.1	360	4500	0.25	1.0	91.2	12
CMZ5952C	127.4	130	132.6	2.9	450	5000	0.25	1.0	98.8	11
CMZ5953C	147.0	150	153.0	2.5	600	6000	0.25	1.0	114.0	10
CMZ5954C	156.8	160	163.2	2.3	700	6500	0.25	1.0	121.6	9.0
CMZ5955C	176.4	180	183.6	2.1	900	7000	0.25	1.0	136.8	8.0
CMZ5956C	196.0	200	204.0	1.9	1200	8000	0.25	1.0	152.0	7.0

SMA CASE - MECHANICAL OUTLINE



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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).

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