

CMZ5913B THRU CMZ5956B

**SURFACE MOUNT SILICON
ZENER DIODES
1.5 WATT, 3.3 THRU 200 VOLT
± 5% TOLERANCE**

**SMA CASE**www.centrasemi.com**DESCRIPTION:**

The CENTRAL SEMICONDUCTOR CMZ5913B 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. To order devices on 12mm Tape and Reel (5000/13" Reel), add TR13 suffix to part number.

**MARKING: SEE MARKING CODE ON
ELECTRICAL CHARACTERISTIC TABLE**

FEATURES:

- Super miniature case
- 200 Watts of TVS power
- ± 5% Tolerance
- Superior lot to lot consistency
- Low cost
- High reliability
- "C" bend construction provides strain relief when mounted on pc board

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)

SYMBOL I_{FSM}

20

UNITS

A

 P_D

1.5

W

 P_D

0.5

W

 P_{PK}

200

W

 P_{PK}

1000

W

 T_J, T_{stg}

-65 to +150

 $^\circ\text{C}$ θ_{JL}

50

 $^\circ\text{C/W}$ θ_{JA}

250

 $^\circ\text{C/W}$ **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 ($T_L=75^\circ\text{C}$)	MARKING CODE
	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	
CMZ5913B	3.135	3.3	3.465	113.6	10	500	1.0	100	1.0	454	C5913B
CMZ5914B	3.420	3.6	3.780	104.2	9.0	500	1.0	75	1.0	416	C5914B
CMZ5915B	3.705	3.9	4.095	96.1	7.5	500	1.0	25	1.0	384	C5915B
CMZ5916B	4.085	4.3	4.515	87.2	6.0	500	1.0	5.0	1.0	348	C5916B
CMZ5917B	4.465	4.7	4.935	79.8	5.0	500	1.0	5.0	1.5	319	C5917B
CMZ5918B	4.845	5.1	5.355	73.5	4.0	350	1.0	5.0	2.0	294	C5918B
CMZ5919B	5.320	5.6	5.880	66.9	2.0	250	1.0	5.0	3.0	267	C5919B
CMZ5920B	5.890	6.2	6.510	60.5	2.0	200	1.0	5.0	4.0	241	C5920B
CMZ5921B	6.460	6.8	7.140	55.1	2.5	200	1.0	5.0	5.2	221	C5921B
CMZ5922B	7.125	7.5	7.875	50.0	3.0	400	0.5	5.0	6.0	200	C5922B
CMZ5923B	7.790	8.2	8.610	45.7	3.5	400	0.5	5.0	6.5	183	C5923B
CMZ5924B	8.645	9.1	9.555	41.2	4.0	500	0.5	5.0	7.0	165	C5924B
CMZ5925B	9.500	10	10.50	37.5	4.5	500	0.25	5.0	8.0	150	C5925B
CMZ5926B	10.45	11	11.55	34.1	5.5	550	0.25	1.0	8.4	136	C5926B

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

R9 (24-April 2015)

CMZ5913B THRU CMZ5956B

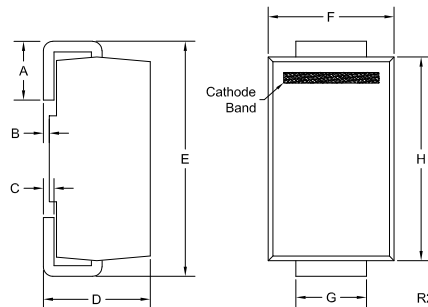
**SURFACE MOUNT SILICON
ZENER DIODES
1.5 WATT, 3.3 THRU 200 VOLT
± 5% TOLERANCE**



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 I_{ZT}	MAXIMUM ZENER IMPEDANCE			MAXIMUM REVERSE CURRENT		MAXIMUM ZENER CURRENT ($T_L=75^{\circ}\text{C}$) I_{ZM}	MARKING CODE
	MIN	NOM	MAX		$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$	$I_R @ V_R$				
	V	V	V		Ω	Ω	μA	V	V	mA	
CMZ5927B	11.40	12	12.60	31.2	6.5	550	0.25	1.0	9.1	125	C5927B
CMZ5928B	12.35	13	13.65	28.8	7.0	550	0.25	1.0	9.9	115	C5928B
CMZ5929B	14.25	15	15.75	25.0	9.0	600	0.25	1.0	11.4	100	C5929B
CMZ5930B	15.20	16	16.80	23.4	10	600	0.25	1.0	12.2	94	C5930B
CMZ5931B	17.10	18	18.90	20.8	12	650	0.25	1.0	13.7	83	C5931B
CMZ5932B	19.00	20	21.00	18.7	14	650	0.25	1.0	15.2	75	C5932B
CMZ5933B	20.90	22	23.10	17.0	17.5	650	0.25	1.0	16.7	68	C5933B
CMZ5934B	22.80	24	25.20	15.6	19	700	0.25	1.0	18.2	63	C5934B
CMZ5935B	25.65	27	28.35	13.9	23	700	0.25	1.0	20.6	56	C5935B
CMZ5936B	28.50	30	31.50	12.5	26	750	0.25	1.0	22.8	50	C5936B
CMZ5937B	31.35	33	34.65	11.4	33	800	0.25	1.0	25.1	45	C5937B
CMZ5938B	34.20	36	37.80	10.4	38	850	0.25	1.0	27.4	42	C5938B
CMZ5939B	37.05	39	40.95	9.6	45	900	0.25	1.0	29.7	38	C5939B
CMZ5940B	40.85	43	45.15	8.7	53	950	0.25	1.0	32.7	35	C5940B
CMZ5941B	44.65	47	49.35	8.0	67	1000	0.25	1.0	35.8	32	C5941B
CMZ5942B	48.45	51	53.55	7.3	70	1100	0.25	1.0	38.8	29	C5942B
CMZ5943B	53.20	56	58.80	6.7	86	1300	0.25	1.0	42.6	27	C5943B
CMZ5944B	58.90	62	65.10	6.0	100	1500	0.25	1.0	47.1	24	C5944B
CMZ5945B	64.60	68	71.40	5.5	120	1700	0.25	1.0	51.7	22	C5945B
CMZ5946B	71.25	75	78.75	5.0	140	2000	0.25	1.0	56.0	20	C5946B
CMZ5947B	77.90	82	86.10	4.6	160	2500	0.25	1.0	62.2	18	C5947B
CMZ5948B	86.45	91	95.55	4.1	200	3000	0.25	1.0	69.2	16	C5948B
CMZ5949B	95.00	100	105.0	3.7	250	3100	0.25	1.0	76.0	15	C5949B
CMZ5950B	104.5	110	115.5	3.4	300	4000	0.25	1.0	83.6	13	C5950B
CMZ5951B	114.0	120	126.0	3.1	360	4500	0.25	1.0	91.2	12	C5951B
CMZ5952B	123.5	130	136.5	2.9	450	5000	0.25	1.0	98.8	11	C5952B
CMZ5953B	142.5	150	157.5	2.5	600	6000	0.25	1.0	114.0	10	C5953B
CMZ5954B	152.0	160	168.0	2.3	700	6500	0.25	1.0	121.6	9.0	C5954B
CMZ5955B	171.0	180	189.0	2.1	900	7000	0.25	1.0	136.8	8.0	C5955B
CMZ5956B	190.0	200	210.0	1.9	1200	8000	0.25	1.0	152.0	7.0	C5956B

SMA CASE - MECHANICAL OUTLINE



SYMBOL	DIMENSIONS			
	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.030	0.060	0.76	1.52
B	0.004	0.008	0.10	0.20
C	0.006	0.012	0.15	0.30
D	0.078	0.103	1.98	2.62
E	0.188	0.220	4.78	5.59
F	0.090	0.115	2.29	2.92
G	0.050	0.070	1.27	1.78
H	0.157	0.181	3.99	4.60

SMA (REV: R2)

R9 (24-April 2015)

CMZ5913B THRU CMZ5956B

**SURFACE MOUNT SILICON
ZENER DIODES
1.5 WATT, 3.3 THRU 200 VOLT
± 5% TOLERANCE**



SERVICES

- Bonded Inventory
- Custom Electrical Screening
- Custom Electrical Characteristic Curves
- SPICE Models
- Custom Packaging
- Package Base Options
- Custom Device Development/ Multi Discrete Modules (MDM™)
- Bare Die Available for Hybrid Applications

LIMITATIONS AND DAMAGES DISCLAIMER: In no event shall Central be liable for any collateral, indirect, punitive, incidental, consequential, or exemplary damages in connection with or arising out of a purchase order or contract or the use of products provided hereunder, regardless of whether Central has been advised of the possibility of such damages. Excluded damages shall include, but not be restricted to: cost of removal or reinstallation, rework, ancillary costs to the procurement of substitute products, loss of profits, loss of savings, loss of use, loss of data, or business interruption. No claim, suit, or action shall be brought against Central more than two (2) years after the related cause of action has occurred.

In no event shall Central's aggregate liability from any warranty, indemnity, or other obligation arising out of or in connection with a purchase order or contract, or any use of any Central product provided hereunder, exceed the total amount paid to Central for the specific products sold under a purchase order or contract with respect to which losses or damages are claimed. The existence of more than one (1) claim against the specific products sold to Buyer under a purchase order or contract shall not enlarge or extend this limit.

Buyer understands and agrees that the foregoing liability limitations are essential elements of a purchase order or contract and that in the absence of such limitations, the material and economic terms of the purchase order or contract would be substantially different.

R9 (24-April 2015)



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

Телефон: 8 (812) 309 58 32 (многоканальный)

Факс: 8 (812) 320-02-42

Электронная почта: org@eplast1.ru

Адрес: 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.