CMZ5913B THRU CMZ5956B

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

SMA CASE

Central Semiconductor Corp.

www.centralsemi.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°C unless otherwise noted)	**SYMBOL**		**UNITS**
Peak Forward Surge Current, tp=8.3ms	I_{FSM}	20	A
Power Dissipation (T_L=75°C)	P_D	1.5	W
Power Dissipation (Note 1)	P_D	0.5	W
Peak Power Dissipation, tp=10x1000μs (T_L<25°C)	P_{PK}	200	W
Peak Power Dissipation, tp=8x20μs (T_L<25°C)	P_{PK}	1000	W
Operating and Storage Junction Temperature	T_J, T_{stg}	-65 to +150	°C
Thermal Resistance	Θ_{JL}	50	°C/W
Thermal Resistance (Note 1)	Θ_{JA}	250	°C/W

ELECTRICAL CHARACTERISTICS: (T_A=25°C) V_F=1.5V MAX @ I_F=200mA (for all types)

TYPE	ZENER VOLTAGE V_Z @ I_{ZT}			TEST CURRENT	MAXIMUM ZENER IMPEDANCE			MAXIMUM REVERSE CURRENT		MAXIMUM ZENER 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_{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.

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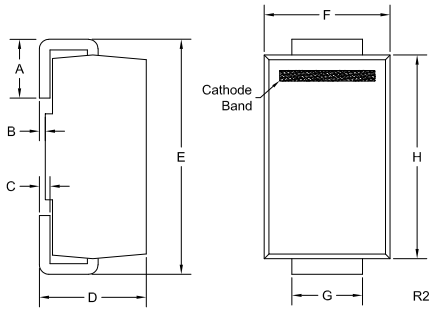
± 5% TOLERANCE

ELECTRICAL CHARACTERISTICS - Continued: (T_A=25°C) V_F=1.5V MAX @ I_F=200mA (for all types)

TYPE	ZENER VOLTAGE V_Z @ I_{ZT}			TEST CURRENT	MAXIMUM ZENER IMPEDANCE			MAXIMUM REVERSE CURRENT		MAXIMUM ZENER 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_{ZM}	
	V	V	V	mA	Ω	Ω	mA	μA	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



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	0.006	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)

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R9 (24-April 2015)

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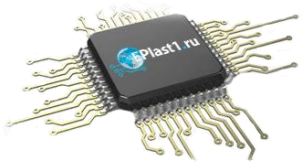
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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