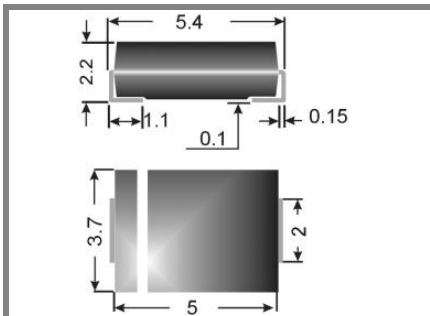


# Z2 SMB1 ... Z2 SMB200 (2W)



Surface mount diode

## Zener silicon diodes

### Z2 SMB1...Z2 SMB200 (2W)

**Maximum Power Dissipation: 2 W**

**Nominal Z-voltage: 1 to 200 V**

### Features

- Max. solder temperature: 260°C
- Plastic material has UL classification 94V-0
- Standard Zener voltage tolerance is graded to the international E 24 (5%) standard. Other voltage tolerances and higher Zener voltages on request.

### Mechanical Data

- Plastic case SMB / DO-214AA
- Weight approx.: 0,1 g
- Terminals: plated terminals solderable per MIL-STD-750
- Mounting position: any
- Standard packaging: 3000 pieces per reel

1) Mounted on P.C. board with 50 mm<sup>2</sup> copper pads at each terminal

2) Tested with pulses

3) The Z2SMB1 is a diode operated in forward. Hence, the index of all parameters should be "F" instead of "Z". The cathode, indicated by a white band is to be connected to the negative pole.

Absolute Maximum Ratings		T <sub>c</sub> = 25 °C, unless otherwise specified	
Symbol	Conditions	Values	Units
P <sub>tot</sub>	Power dissipation, T <sub>A</sub> = 50 °C <sup>1)</sup>	2	W
P <sub>ZSM</sub>	Non repetitive peak power dissipation, t < 10 ms	40	W
R <sub>thA</sub>	Max. thermal resistance junction to ambient	60	K/W
R <sub>thT</sub>	Max. thermal resistance junction to terminal	15	K/W
T <sub>j</sub>	Operating junction temperature	- 50 ... + 150	°C
T <sub>s</sub>	Storage temperature	- 50 ... + 175	°C

Type	Zener Voltage <sup>2)</sup> V <sub>Z</sub> @I <sub>ZT</sub>		Test curr. I <sub>ZT</sub> mA	Dyn. Resistance Z <sub>ZT</sub> @I <sub>ZT</sub> Ω	Temp. Coeffiz. of V <sub>Z</sub> a <sub>VZ</sub> 10 <sup>-4</sup> /°C	I <sub>R</sub> μA	V <sub>R</sub> V	Z-curr. <sup>1)</sup> T <sub>A</sub> = 50 °C I <sub>Zmax</sub> mA
	V <sub>Zmin</sub> V	V <sub>Zmax</sub> V						
Z2SMB1 <sup>3)</sup>	0,71	0,82	100	0,5 (<1)	- 26 ... - 16			1000
Z2SMB10	9,4	10,6	50	2 (<4)	+ 5 ... + 9	1	> 5	189
Z2SMB11	10,4	11,6	50	4 (<7)	+ 5 ... + 10	1	> 5	172
Z2SMB12	11,4	12,7	50	4 (<7)	+ 5 ... + 10	1	> 7	157
Z2SMB13	12,4	14,1	50	5 (<10)	+ 5 ... + 10	1	> 7	142
Z2SMB15	13,8	15,6	50	5 (<10)	+ 5 ... + 10	1	> 10	128
Z2SMB16	15,3	17,1	25	6 (<15)	+ 6 ... + 11	1	> 10	117
Z2SMB18	16,8	19,1	25	6 (<15)	+ 6 ... + 11	1	> 10	105
Z2SMB20	18,8	21,2	25	6 (<15)	+ 6 ... + 11	1	> 10	94
Z2SMB22	20,8	23,3	25	6 (<15)	+ 6 ... + 11	1	> 12	86
Z2SMB24	22,8	25,6	25	7 (<15)	+ 6 ... + 11	1	> 12	78
Z2SMB27	25,1	28,9	25	7 (<15)	+ 6 ... + 11	1	> 14	69
Z2SMB30	28	32	25	8 (<15)	+ 6 ... + 11	1	> 14	63
Z2SMB33	31	35	25	8 (<15)	+ 6 ... + 11	1	> 17	57
Z2SMB36	34	38	10	16 (<40)	+ 6 ... + 11	1	> 17	53
Z2SMB39	37	41	10	20 (<40)	+ 6 ... + 11	1	> 20	49
Z2SMB43	40	46	10	24 (<45)	+ 7 ... + 12	1	> 20	43
Z2SMB47	44	50	10	24 (<45)	+ 7 ... + 12	1	> 24	40
Z2SMB51	48	54	10	25 (<60)	+ 7 ... + 12	1	> 24	37
Z2SMB56	52	60	10	25 (<60)	+ 7 ... + 12	1	> 28	33
Z2SMB62	58	66	10	25 (<80)	+ 8 ... + 13	1	> 28	30
Z2SMB68	64	72	10	25 (<80)	+ 8 ... + 13	1	> 34	28
Z2SMB75	70	79	10	30 (<100)	+ 8 ... + 13	1	> 34	25
Z2SMB82	77	88	10	30 (<100)	+ 8 ... + 13	1	> 41	23
Z2SMB91	85	96	5	40 (<200)	+ 9 ... + 13	1	> 41	21
Z2SMB100	94	106	5	60 (<200)	+ 9 ... + 13	1	> 50	19
Z2SMB110	104	116	5	80 (<250)	+ 9 ... + 13	1	> 50	17
Z2SMB120	114	127	5	80 (<250)	+ 9 ... + 13	1	> 60	16
Z2SMB130	124	141	5	90 (<300)	+ 9 ... + 13	1	> 60	14
Z2SMB150	138	156	5	100 (<300)	+ 9 ... + 13	1	> 75	13
Z2SMB160	153	171	5	110 (<350)	+ 9 ... + 13	1	> 75	12
Z2SMB180	168	191	5	120 (<350)	+ 9 ... + 13	1	> 90	10
Z2SMB200	188	212	5	150 (<350)	+ 9 ... + 13	1	> 90	9