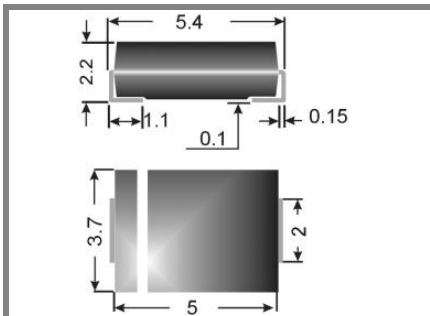


# Z3 SMB 1 ... Z3 SMB 200 (3W)



Surface mount diode

## Zener silicon diodes

### Z3 SMB 1 ... Z3 SMB 200

**Maximum Power Dissipation: 3 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 Z2SMC 1 is a diode operated in forward. Hence, the index of all parameters should be "F" instead of "Z". The cathode, indicated by a white ring is to be connected to the negative pole.

Absolute Maximum Ratings		$T_A = 25\text{ °C}$ , unless otherwise specified	
Symbol	Conditions	Values	Units
$P_{\text{tot}}$	Power dissipation, $T_A = 50\text{ °C}$ <sup>1)</sup>	3	W
$P_{\text{ZSM}}$	Non repetitive peak power dissipation, $t < 10\text{ ms}$	60	W
$R_{\text{thA}}$	Max. thermal resistance junction to ambient	60	K/W
$R_{\text{thT}}$	Max. thermal resistance junction to terminal	15	K/W
$T_j$	Operating junction temperature	- 50 ... + 150	°C
$T_s$	Storage temperature	- 50 ... + 150	°C

Type	Zener Voltage <sup>2)</sup> $V_Z@I_{ZT}$		Test curr. $I_{ZT}$ mA	Dyn. Resistance $Z_{ZT}@I_{ZT}$ $\Omega$	Temp. Coeffiz. of $V_Z$ $a_{VZ}$ $10^{-4}/\text{°C}$	Z- curr. <sup>1)</sup> $T_A = 50\text{ °C}$		
	$V_{Z\text{min}}$ V	$V_{Z\text{max}}$ V				$I_R$ $\mu\text{A}$	$V_R$ V	$I_{Z\text{max}}$ mA
Z3SMB 1 <sup>3)</sup>	0,71	0,82	100	0,5 (<1)	- 26 ... - 16	1	> 1,5	455
Z3SMB 6,2	5,8	6,6	100	1 (<2)	- 1 ... + 6	1	> 2	417
Z3SMB 6,8	6,4	7,2	100	1 (<2)	0 ... + 7	1	> 2	380
Z3SMB 7,5	7	7,9	100	1 (<2)	+ 3 ... + 8	1	> 3,5	345
Z3SMB 8,2	7,7	8,7	100	1 (<2)	+ 3 ... + 8	1	> 3,5	313
Z3SMB 9,1	8,5	9,6	50	2 (<4)	+ 5 ... + 9	1	> 5	283
Z3SMB 10	9,4	10,6	50	2 (<4)	+ 5 ... + 10	1	> 5	259
Z3SMB 11	10,4	11,6	50	4 (<7)	+ 5 ... + 10	1	> 7	236
Z3SMB 12	11,4	12,7	50	4 (<7)	+ 5 ... + 10	1	> 7	213
Z3SMB 13	12,4	14,1	50	5 (<10)	+ 5 ... + 10	1	> 10	192
Z3SMB 15	13,8	15,6	50	5 (<10)	+ 6 ... + 11	1	> 10	175
Z3SMB 16	15,3	17,1	25	6 (<15)	+ 6 ... + 11	1	> 10	157
Z3SMB 18	16,8	19,1	25	6 (<15)	+ 6 ... + 11	1	> 10	142
Z3SMB 20	18,8	21,2	25	6 (<15)	+ 6 ... + 11	1	> 12	129
Z3SMB 22	20,8	23,3	25	7 (<15)	+ 6 ... + 11	1	> 12	117
Z3SMB 24	22,8	25,6	25	7 (<15)	+ 6 ... + 11	1	> 14	104
Z3SMB 27	25,1	28,9	25	8 (<15)	+ 6 ... + 11	1	> 14	94
Z3SMB 30	28	32	25	8 (<15)	+ 6 ... + 11	1	> 17	86
Z3SMB 33	31	35	10	16 (<30)	+ 6 ... + 11	1	> 17	79
Z3SMB 36	34	38	10	20 (<40)	+ 7 ... + 12	1	> 20	73
Z3SMB 39	37	41	10	24 (<40)	+ 7 ... + 12	1	> 24	65
Z3SMB 43	40	46	10	24 (<40)	+ 7 ... + 12	1	> 24	60
Z3SMB 47	44	50	10	25 (<60)	+ 7 ... + 12	1	> 24	56
Z3SMB 51	48	54	10	25 (<60)	+ 7 ... + 12	1	> 28	50
Z3SMB 56	52	60	10	25 (<80)	+ 8 ... + 13	1	> 28	45
Z3SMB 62	58	66	10	30 (<100)	+ 8 ... + 13	1	> 34	42
Z3SMB 68	64	72	10	30 (<100)	+ 8 ... + 13	1	> 41	34
Z3SMB 75	70	79	10	40 (<150)	+ 9 ... + 13	1	> 41	31
Z3SMB 82	77	88	5	60 (<150)	+ 9 ... + 13	1	> 50	28
Z3SMB 91	85	96	5	80 (<200)	+ 9 ... + 13	1	> 50	26
Z3SMB 100	94	106	5	80 (<200)	+ 9 ... + 13	1	> 60	24
Z3SMB 110	104	116	5	90 (<250)	+ 9 ... + 13	1	> 60	21
Z3SMB 120	114	127	5	100(<250)	+ 9 ... + 13	1	> 75	19
Z3SMB 130	124	141	5	110(<300)	+ 9 ... + 13	1	> 75	18
Z3SMB 150	138	156	5	120(<350)	+ 9 ... + 13	1	> 90	16
Z3SMB 160	153	171	5	150(<350)	+ 9 ... + 13	1	> 90	14
Z3SMB 180	168	191	5	150(<350)	+ 9 ... + 13	1	> 90	14
Z3SMB 200	188	212	5	150(<350)	+ 9 ... + 13	1	> 90	14