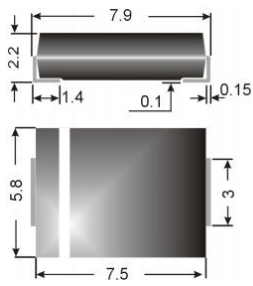


# Z3 SMC 1 ... Z3 SMC 200 (3W)



Surface mount diode

## Zener silicon diodes

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

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: SMC / DO-214AB
- Weight approx.: 0,21 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  
 Tested with pulses  
 The Z3SMC1 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 <sub>s</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>	3	W
P <sub>ZSM</sub>	Non repetitive peak power dissipation, t < 10 ms	60	V
R <sub>thA</sub>	Max. thermal resistance junction to ambient <sup>1)</sup>	33	K/W
R <sub>thT</sub>	Max. thermal resistance junction to case	10	K/W
T <sub>j</sub>	Operating junction temperature	- 50 ... + 150	°C
T <sub>s</sub>	Storage temperature	- 50 ... + 150	°C

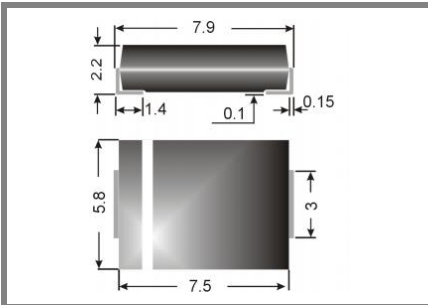
Type	Zener Voltage V <sub>Z</sub> @I <sub>ZT</sub>		Test curr. I <sub>ZT</sub>	Dyn. Resistance			Temp. Coeffiz. of V <sub>Z</sub> 10 <sup>-4</sup> °C	Reverse curr.		Z curr. T <sub>A</sub> = 50 °C i <sub>Zmax</sub> mA
	V <sub>Zmin</sub> V	V <sub>Zmax</sub> V		Z <sub>ZT</sub> @I <sub>ZT</sub>	Z <sub>ZK</sub> @I <sub>ZK</sub>	I <sub>ZK</sub> mA		I <sub>R</sub> μA	V <sub>R</sub> V	
Z3SMC1 <sup>3)</sup>	0,71	0,82	100	0,5 (<1)			- 26 ... - 16		-	2000
Z3SMC6,2	5,8	6,6	100	1 (<2)			- 1 ... + 6	1	> 1,5	455
Z3SMC6,8	6,4	7,2	100	1 (<2)			0 ... + 7	1	> 2	417
Z3SMC7,5	7	7,9	100	1 (<2)			0 ... + 7	1	> 2	380
Z3SMC8,2	7,7	8,7	100	1 (<2)			+ 3 ... + 8	1	> 3,5	345
Z3SMC9,1	8,5	9,6	50	2 (<4)			+ 3 ... + 8	1	> 3,5	313
Z3SMC10	9,4	10,6	50	2 (<4)			+ 5 ... + 9	1	> 5	283
Z3SMC11	10,4	11,6	50	4 (<7)			+ 5 ... + 10	1	> 5	259
Z3SMC12	11,4	12,7	50	4 (<7)			+ 5 ... + 10	1	> 7	236
Z3SMC13	12,4	14,1	50	5 (<10)			+ 5 ... + 10	1	> 7	213
Z3SMC15	13,8	15,6	50	5 (<10)			+ 5 ... + 10	1	> 10	192
Z3SMC16	15,3	17,1	25	6 (<15)			+ 6 ... + 11	1	> 10	175
Z3SMC18	16,8	19,1	25	6 (<15)			+ 6 ... + 11	1	> 10	157
Z3SMC20	18,8	21,2	25	6 (<15)			+ 6 ... + 11	1	> 10	142
Z3SMC22	20,8	23,3	25	6 (<15)			+ 6 ... + 11	1	> 12	129
Z3SMC24	22,8	25,6	25	7 (<15)			+ 6 ... + 11	1	> 12	117
Z3SMC27	25,1	28,9	25	7 (<15)			+ 6 ... + 11	1	> 14	104
Z3SMC30	28	32	25	8 (<15)			+ 6 ... + 11	1	> 14	94
Z3SMC33	31	35	25	8 (<15)			+ 6 ... + 11	1	> 17	86
Z3SMC36	34	38	10	16 (<30)			+ 6 ... + 11	1	> 17	79
Z3SMC39	37	41	10	20 (<40)			+ 6 ... + 11	1	> 20	73
Z3SMC43	40	46	10	24 (<40)			+ 7 ... + 12	1	> 20	65
Z3SMC47	44	50	10	24 (<40)			+ 7 ... + 12	1	> 24	60
Z3SMC51	48	54	10	25 (<60)			+ 7 ... + 12	1	> 24	56
Z3SMC56	52	60	10	25 (<60)			+ 7 ... + 12	1	> 28	50
Z3SMC62	58	66	10	25 (<80)			+ 8 ... + 13	1	> 28	45
Z3SMC68	64	72	10	25 (<80)			+ 8 ... + 13	1	> 34	42
Z3SMC75	70	79	10	30 (<100)			+ 8 ... + 13	1	> 34	38
Z3SMC82	77	88	10	30 (<100)			+ 8 ... + 13	1	> 41	34
Z3SMC91	85	96	5	40 (<150)			+ 9 ... + 13	1	> 41	31
Z3SMC100	94	106	5	60 (<150)			+ 9 ... + 13	1	> 50	28
Z3SMC110	104	116	5	80 (<200)			+ 9 ... + 13	1	> 50	26
Z3SMC120	114	127	5	80 (<200)			+ 9 ... + 13	1	> 60	24
Z3SMC130	124	141	5	90 (<250)			+ 9 ... + 13	1	> 60	21

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Type	Zener Voltage $V_Z@I_{ZT}$		Test curr. $I_{ZT}$ mA	Dyn. Resistance			Temp. Coeffiz. of $V_Z$  $10^{-4}$ °C	Reverse curr.		Z curr. $T_A = 50$ °C  $i_{Zmax}$ mA
	$V_{Zmin}$	$V_{Zmax}$		$Z_{ZT}@$	$Z_{ZK}@$	$I_{ZK}$		$I_R$	$V_R$	
	V	V		$I_{ZT}$	$I_{ZK}$	mA		µA	V	
Z3SMC150	138	156	5	100(<250)			+ 9 ... + 13	1	> 75	19
Z3SMC160	153	171	5	110(<300)			+ 9 ... + 13	1	> 75	18
Z3SMC180	168	191	5	120(<350)			+ 9 ... + 13	1	> 90	16
Z3SMC200	188	212	5	150(<350)			+ 9 ... + 13	1	> 90	14

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Surface mount diode

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	$V_{Zmin}$	$V_{Zmax}$		$Z_{ZT}@I_{ZT}$	$Z_{ZK}@I_{ZK}$	$I_{ZK}$		$I_R$	$V_R$	
	V	V	mA			mA	$^{\circ}C$	$\mu A$	V	mA

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