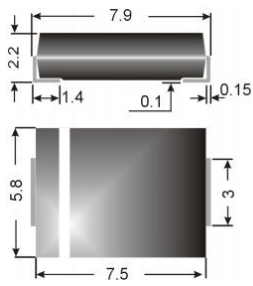


# Z5 SMC 1 ... Z5 SMC 200 (5W)



Surface mount diode

## Zener silicon diodes

### Z5 SMC 1 ... Z5 SMC 200

**Maximum Power Dissipation: 5 W**

**Nominal Z-voltage: 8,7 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

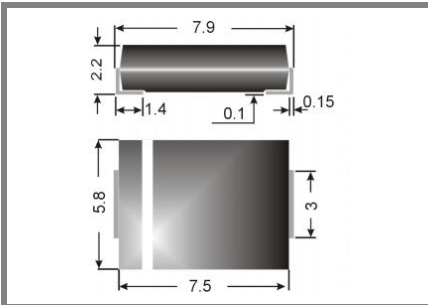
- Plastic case: SMC / DO-214AB
- Weight approx.: 0,21 g
- Terminals: plated terminals solderable per MIL-STD-750
- Mounting position: any
- Standard packaging: 3000 pieces per reel

1) Mounted on P.C. board with 50 mm<sup>2</sup> copper pads at each terminal  
 Tested with pulses  
 The Z5SMC1 is a diode operated in forward.  
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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> = 75 °C <sup>1)</sup>	5	W
P <sub>ZSM</sub>	Non repetitive peak power dissipation, t < 10 ms	70	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> mA	Dyn. Resistance Z <sub>ZT</sub> @ I <sub>ZT</sub>	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				I <sub>R</sub> µA	V <sub>R</sub> V	
Z5SMC1 <sup>1)</sup>	0,71	0,82	150	0,5 (<1)	-	-	-	2000
Z5SMC9,1	8,65	9,56	150	2	-	7,5	> 6,9	
Z5SMC10	9,4	10,6	125	2	-	5	> 7,6	475
Z5SMC11	10,4	11,6	125	2,5	-	5	> 8,4	432
Z5SMC12	11,4	12,7	100	2,5	-	2	> 9,1	396
Z5SMC13	12,5	13,8	100	2,5	-	1	> 9,9	365
Z5SMC15	14,2	15,8	75	2,5	-	1	> 11,5	317
Z5SMC16	15,2	16,9	75	2,5	-	1	> 12,2	297
Z5SMC18	17	19	65	2,5	-	0,5	> 13,7	264
Z5SMC20	18,9	21,1	65	3	-	0,5	> 15,2	238
Z5SMC22	20,8	23,2	50	3,5	-	0,5	> 16,7	216
Z5SMC24	22,7	25,3	50	3,5	-	0,5	> 18,2	198
Z5SMC27	25,6	28,4	50	5	-	0,5	> 20,6	176
Z5SMC28	26,5	29,5	50	6	-	0,5	> 21,2	170
Z5SMC30	28,3	31,7	40	8	-	0,5	> 22,8	158
Z5SMC33	31,2	34,8	40	10	-	0,5	> 25,1	144
Z5SMC36	34	38	30	11	-	0,5	> 27,4	132
Z5SMC39	37	41	30	14	-	0,5	> 29,7	122
Z5SMC43	40	46	30	20	-	0,5	> 32,7	110
Z5SMC47	44,5	49,5	25	25	-	0,5	> 35,8	101
Z5SMC51	48	54	25	27	-	0,5	> 38,8	93
Z5SMC56	53	59	20	35	-	0,5	> 42,6	85
Z5SMC62	58,5	66	20	42	-	0,5	> 47,1	77
Z5SMC68	64	72	20	44	-	0,5	> 51,7	70
Z5SMC75	70	79	20	45	-	0,5	> 56	63
Z5SMC82	77,5	86,5	15	65	-	0,5	> 62,2	58
Z5SMC91	86	96	15	75	-	0,5	> 69,2	52
Z5SMC100	94	106	12	90	-	0,5	> 76	48
Z5SMC110	104	116	12	125	-	0,5	> 83,6	43
Z5SMC120	113,5	126,5	10	170	-	0,5	> 91,2	40
Z5SMC130	123	137	10	190	-	0,5	> 98,8	37
Z5SMC150	142	158	8	330	-	0,5	> 114	32
Z5SMC160	151,5	168,5	8	350	-	0,5	> 122	30
Z5SMC180	170,5	189,5	5	430	-	0,5	> 137	26
Z5SMC200	189	211	5	480	-	0,5	> 152	24

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Type	Zener Voltage $V_Z @ I_{ZT}$		Test curr. $I_{ZT}$ mA	Dyn. Resistance $Z_{ZT} @ I_{ZT}$	Temp. Coeffiz. of $V_Z$ $10^{-4}$ °C	Reverse curr.		Z curr. $T_A = 50$ °C $i_{Zmax}$ mA
	$V_{Zmin}$ V	$V_{Zmax}$ V				$I_R$ µA	$V_R$ V	

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