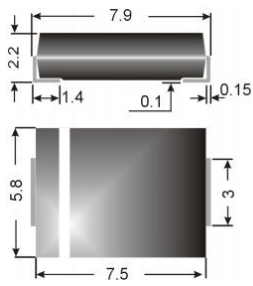


# Z5 SMC 1 ... Z5 SMC 200 (5W)



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

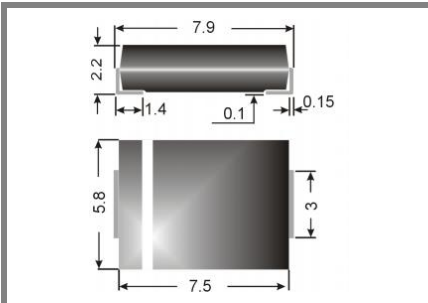
- Plastic case: SMC / DO-214AB
- Weight approx.: 0,21 g
- Terminals: plated terminals solderable per MIL-STD-750
- Mounting position: any
- Standard packaging: 3000 pieces per reel

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

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>	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>
	V <sub>Zmin</sub>	V <sub>Zmax</sub>		Z <sub>ZT</sub> @I <sub>ZT</sub>	Z <sub>ZK</sub> @I <sub>ZK</sub>	I <sub>ZK</sub>		I <sub>R</sub>	V <sub>R</sub>	
	V	V	mA			mA		µA	V	mA
Z5SMC8,7	8,27	9,14	150	2			-	10	> 6,6	
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
Z5SMC14	13,2	14,8	100	2,5			-	1	> 10,6	339
Z5SMC15	14,2	15,8	75	2,5			-	1	> 11,5	317
Z5SMC16	15,2	16,9	75	2,5			-	1	> 12,2	297
Z5SMC17	16,1	17,9	70	2,5			-	0,5	> 12,9	279
Z5SMC18	17	19	65	2,5			-	0,5	> 13,7	264
Z5SMC19	18	20	65	3			-	0,5	> 14,4	250
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
Z5SMC25	23,7	26,3	50	4			-	0,5	> 19	190
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
Z5SMC60	56,5	63,5	20	40			-	0,5	> 45,5	79
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
Z5SMC87	82	92	15	75			-	0,5	> 66	55
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
Z5SMC140	132,5	147,5	8	230			-	0,5	> 106	34

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Type	Zener Voltage $V_Z@I_{ZT}$		Test curr. $I_{ZT}$	Dyn. Resistance			Temp. Coeffiz. of $V_Z$  10 <sup>-4</sup> °C	Reverse curr.		Z curr. $T_A = 50$ °C $i_{Zmax}$
	$V_{Zmin}$ V	$V_{Zmax}$ V		$Z_{ZT}@I_{ZT}$	$Z_{ZK}@I_{ZK}$	$I_{ZK}$ mA		$I_R$ µA	$V_R$ V	
Z5SMC150	142	158	8	330			-	0,5	> 114	32
Z5SMC160	151,5	168,5	8	350			-	0,5	> 122	30
Z5SMC170	161	179	8	380			-	0,5	> 129	28
Z5SMC180	170,5	189,5	5	430			-	0,5	> 137	26
Z5SMC190	180	200	5	450			-	0,5	> 144	25
Z5SMC200	189	211	5	480			-	0,5	> 152	24

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