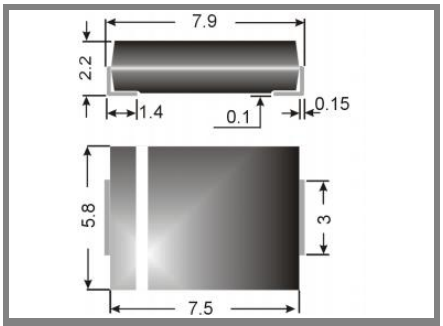
Z3 SMC1 ... Z3 SMC200(3W)



Surface mount diode

Zener silicon diodes

Z3 SMC1...Z3 SMC200(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 E24 (5%) standard. Other voltage tolerances and higher Zener voltages on request.

Mechanical Data

- Plastic case: SMC / DO214AB
- 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^2 copper pads at each terminal

2) Tested with pulses

3) 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 band is to be connected to the negative pole

Absolute Maximum Ratings Tc = 25 °C, unless otherwise specified

Symbol	Conditions	Values	Units
P_{tot}	Power dissipation, T_A = 50 °C 1)	3	W
P_{ZSM}	Non repetitive peak power dissipation, t < 10 ms	60	W
R_{thA}	Max. thermal resistance junction to ambient	33	K/W
R_{thT}	Max. thermal resistance junction to terminal	10	K/W
T_j	Operating junction temperature	-50...+150	°C
T_s	Storage temperature	-50...+175	°C

Type	Zener Voltage 2) V_Z@I_{ZT}		Test curr. I_{ZT}	Dyn. Resistance	Temp. Coeffiz. of V_z			Z-curr. 1) T_A = 50 °C
	V_{Zmin} V	V_{Zmax} V	mA	Z_{ZT}@I_{ZT} Ω	a_{VZ} $10^{-4/°C}$	I_R µA	V_R V	I_{Zmax} mA
Z3SMC1 3)	0,71	0,82	100	0,5(<1)	-26...-16	1	-	2000
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
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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