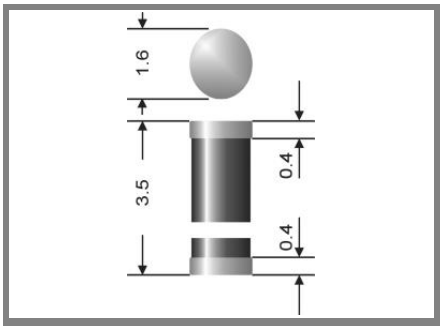
ZMD 1 ... ZMD 100 (1W)



Surface mount diode

Zener silicon diodes

ZMD 1 ... ZMD 100

Maximum Power Dissipation: 1 W

Nominal Z-voltage: 1 to 100 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.
- One blue ring denotes "cathode" and "Z-Diode family"
- The type numbers are noted only on the lable on the reel

Mechanical Data

- Plastic case: MiniMelf / SOD-80 / DO-213AA
- Weight approx.: 0,04 g
- Terminals: plated terminals solderable per MIL-STD-750
- Mounting position: any
- Standard packaging: 10000 pieces per reel

1) Mounted on P.C. board with 25 mm^2 copper pads at each terminal

2) Tested with pulses

3) The ZMD1 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 °C, unless otherwise specified

Symbol	Conditions	Values	Units
P_{tot}	Power dissipation, T_A = 25 °C 1)	1	W
P_{ZSM}	Non repetitive peak power dissipation, t < ms		W
R_{thA}	Max. thermal resistance junction to ambient	150	K/W
R_{thT}	Max. thermal resistance junction to terminal	60	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
ZMD 1[3])	0,71	0,82	5	6,5 (<8)	- 26 ... - 23		-	500
ZMD 6,2	5,8	6,6	5	4,8 (<11)	- 6 ... - 1	1	>1,5	152
ZMD 6,8	6,4	7,2	5	4,5 (<10)	- 5 ... + 2	1	> 2	139
ZMD 7,5	7	7,9	5	4 (<8)	- 3 ... + 4	0,5	> 3,5	127
ZMD 8,2	7,7	8,7	5	4,5 (<10)	- 2 ... + 6	0,5	> 5	115
ZMD 9,1	8,5	9,6	5	4,8 (<11)	- 1 ... + 7	0,5	> 6	104
ZMD 10	9,4	10,6	5	5,2 (<16)	+ 2 ... + 7	0,5	> 7	94
ZMD 11	10,4	11,6	5	6 (<20)	+ 3 ... + 7	0,5	> 7	86
ZMD 12	11,4	12,7	5	7 (<20)	+ 4 ... + 7	0,5	> 8	79
ZMD 13	12,4	14,1	5	9 (<25)	+ 5 ... + 8	0,5	> 9	71
ZMD 15	13,8	15,6	5	11 (<30)	+ 5 ... + 8	0,5	> 10	64
ZMD 16	15,3	17,1	5	13 (<40)	+ 5 ... + 9	0,5	> 11	58
ZMD 18	16,8	19,1	5	18 (<50)	+ 6 ... + 9	0,5	> 12	52
ZMD 20	18,8	21,2	5	20 (<50)	+ 7 ... + 9	0,5	> 13	47
ZMD 22	20,8	23,3	5	25 (<55)	+ 7 ... + 9	0,5	> 15	43
ZMD 24	22,8	25,6	5	28 (<80)	+ 7 ... + 9,5	0,5	> 16	39
ZMD 27	25,1	28,9	5	30 (<80)	+ 8 ... + 9,5	0,5	> 18	35
ZMD 30	28	32	5	35 (<80)	+ 8 ... + 9,5	0,5	> 20	31
ZMD 33	31	35	5	40 (<80)	+ 8 ... + 10	0,5	> 22	29
ZMD 36	34	38	5	40 (<90)	+ 8 ... + 10	0,5	> 24	26
ZMD 39	37	41	5	50 (<90)	+ 8 ... + 10	0,5	> 26	24
ZMD 43	40	46	5	60 (<100)	+ 8 ... + 10	0,5	> 28	22
ZMD 47	44	50	5	70 (<100)	+ 8 ... + 10	0,5	> 31	20
ZMD 51	48	54	5	70 (<100)	+ 8 ... + 10	0,5	> 34	19
ZMD 56	52	60	5	70 (<100)	+ 9 ... + 11	0,5	> 36	17
ZMD 62	58	66	5	80 (<110)	+ 9 ... + 11	0,5	> 41	15
ZMD 68	64	72	5	90 (<140)	+ 9 ... + 12	0,5	> 45	14
ZMD 75	70	79	5	95 (<150)	+ 9 ... + 12	0,5	> 49	13
ZMD 82	77	88	5	100(<170)	+ 9 ... + 12	0,5	> 54	11
ZMD 91	85	96	5	130(<200)	+ 10 ... + 12	0,5	> 59	10
ZMD 100	94	106	5	200(<300)	+ 10 ... + 12	0,5	> 66	9

