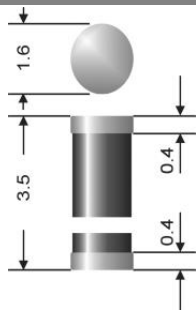


# ZMD 1 ... ZMD 100 (1W)



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 label 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<sup>2</sup> 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		$T_A = 25^\circ\text{C}$ , unless otherwise specified	
Symbol	Conditions	Values	Units
$P_{\text{tot}}$	Power dissipation, $T_A = 25^\circ\text{C}$ <sup>1)</sup>	1	W
$P_{\text{ZSM}}$	Non repetitive peak power dissipation, $t < \text{ms}$		W
$R_{\text{thA}}$	Max. thermal resistance junction to ambient	150	K/W
$R_{\text{thT}}$	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 <sup>2)</sup> $V_Z@I_{ZT}$		Test curr. $I_{ZT}$ mA	Dyn. Resistance $Z_{ZT}@I_{ZT}$ $\Omega$	Temp. Coeff. of $V_Z$ $a_{VZ}$ $10^{-4}/^\circ\text{C}$			Z-curr. <sup>1)</sup> $T_A = 50^\circ\text{C}$ $I_{Z\text{max}}$ mA
	$V_{Z\text{min}}$ V	$V_{Z\text{max}}$ V				$I_R$ $\mu\text{A}$	$V_R$ V	
ZMD 1 <sup>3)</sup>	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