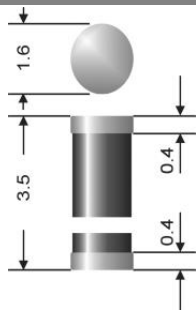


# ZMD 1 ... ZMD 100 (1W)



Surface mount diode

## Zener silicon diodes

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

**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, 2500 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 the yellow ring is to be connected to the negative pole.

Absolute Maximum Ratings		$T_c = 25\text{ }^\circ\text{C}$ , unless otherwise specified	
Symbol	Conditions	Values	Units
$P_{\text{tot}}$	Power dissipation, $T_A = 25\text{ }^\circ\text{C}$ <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 ... + 175	°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. Coeffiz. of $V_Z$ $a_{VZ}$ $10^{-4}/^\circ\text{C}$			Z-curr. <sup>1)</sup> $T_A = 50\text{ }^\circ\text{C}$ $I_{Z\text{max}}$ 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	0,5	-	500
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