

# ZPY3.9 - ZPY100

$V_Z$  : 3.9 to 100V  
 $P_D$  : 1.3W

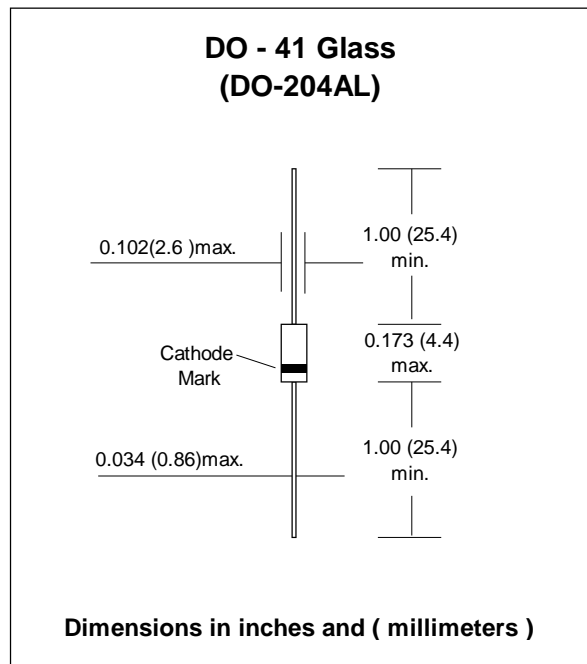
### FEATURES :

- Silicon planar zener diodes
- For use in stabilizing and clipping circuits with high power rating.
- Other tolerances are available upon request.
- These diodes are also available in the MELF case with the type designation ZMY3.9 ... ZMY100.
- **Pb / RoHS Free**

### MECHANICAL DATA :

**Case:** DO-41 Glass Case  
**Weight:** approx. 0.35g

## ZENER DIODES



### Maximum Ratings and Thermal Characteristics

Rating at 25 °C ambient temperature unless otherwise specified.

Parameter	Symbol	Value	Unit
Zener Current see Table "Characteristics"			
Power Dissipation	$P_D$	1.3 <sup>(1)</sup>	W
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	130 <sup>(1)</sup>	°C/W
Junction temperature	$T_J$	175	°C
Storage temperature range	$T_S$	-55 to + 175	°C

**Note:**

(1) Valid provided that leads at a distance of 10mm from case are kept at ambient temperature.

## ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified

Type	Zener Voltage <sup>(1)</sup> V <sub>Z</sub> @ I <sub>ZT</sub>		Test Current I <sub>ZT</sub> (mA)	Dynamic Resistance at I <sub>ZT</sub> , f = 1kHz r <sub>ZJ</sub> (W)	Reverse Voltage at I <sub>R</sub> = 0.5mA V <sub>R</sub> (V)	Admissible Zener Current I <sub>Z</sub> <sup>(2)</sup> (mA)	Temp. coefficient of Zener Voltage a <sub>VZ</sub> (10 <sup>-4</sup> / °C)	
	Min. (V)	Max. (V)					min.	max.
	ZPY3.9	3.7	4.1	100	4 (< 7)	-	290	-7
ZPY4.3	4.0	4.6	100	4 (< 7)	-	280	-7	+3
ZPY4.7	4.4	5	100	2 (< 5)	-	250	-7	+4
ZPY5.1	4.8	6.4	100	1 (< 2)	> 0.7	215	-6	+5
ZPY5.6	5.2	6	100	1 (< 2)	> 1.5	200	-3	+5
ZPY6.2	5.8	6.6	100	1 (< 2)	> 2.0	190	-1	+6
ZPY6.8	6.4	7.2	100	1 (< 2)	> 3.0	170	0	+7
ZPY7.5	7.0	7.9	100	1 (< 2)	> 5.0	155	0	+7
ZPY8.2	7.7	8.7	100	1 (< 2)	> 6.0	140	+3	+8
ZPY9.1	8.5	9.6	50	2 (< 4)	> 7.0	130	+3	+8
ZPY10	9.41	10.6	50	2 (< 4)	> 7.5	120	+5	+9
ZPY11	10.4	11.6	50	3 (< 7)	> 8.5	105	+5	+10
ZPY12	11.4	12.7	50	3 (< 7)	> 9.0	97	+5	+10
ZPY13	12.4	14.1	50	4 (< 9)	> 10	88	+5	+10
ZPY15	13.8	15.8	50	4 (< 9)	> 11	79	+5	+10
ZPY16	15.3	17.1	25	5 (< 10)	> 12	71	+7	+11
ZPY18	16.8	19.1	25	5 (< 11)	> 14	66	+7	+11
ZPY20	18.8	21.2	25	6 (< 12)	> 15	62	+7	+11
ZPY22	20.8	23.3	25	7 (< 13)	> 17		+7	+11
ZPY24	22.8	25.6	25	8 (< 14)	> 18	56	+7	+12
ZPY27	25.1	28.9	25	9 (< 15)	> 20	52	+7	+12
ZPY30	28	32	25	10 (< 20)	> 22.5	47	+7	+12
ZPY33	31	35	25	11 (< 20)	> 25	41	+7	+12
ZPY36	34	38	10	25 (< 60)	> 27	36	+7	+12
ZPY39	37	41	10	30 (< 60)	> 29	33	+8	+12
ZPY43	40	46	10	35 (< 80)	> 32	30	+8	+13
ZPY47	44	50	10	40 (< 80)	> 35	28	+8	+13
ZPY51	48	64	10	45 (< 100)	> 38	26	+8	+13
ZPY56	52	60	10	50 (< 100)	> 42	23	+8	+13
ZPY62	58	66	10	60 (< 130)	> 47	21	+8	+13
ZPY68	64	72	10	65 (< 130)	> 51	19	+8	+13
ZPY75	70	79	10	70 (< 160)	> 56	16	+8	+13
ZPY82	77	88	10	80 (< 160)	> 61	15	+8	+13
ZPY91	85	96	5	120 (< 250)	> 68	14	+9	+13
ZPY100	94	106	5	130 (< 250)	> 75	12	+9	+13

### Notes:

(1) Tested with pulses t<sub>p</sub> = 5 ms

(2) Valid provided that leads are kept at ambient temperature at a distance of 10 mm from case

*For devices in glass case DO-41 with higher Zener voltage but same power dissipation see types ZPU100 ... ZPU180*