Certificate Number: Q10561

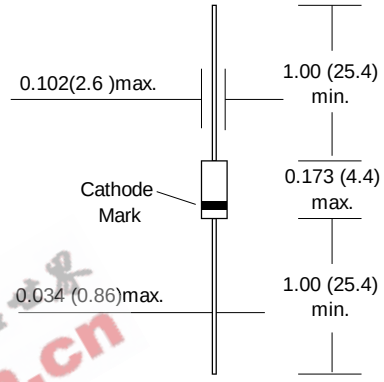
Certificate Number: E17276

ZPY3.9 - ZPY100

ZENER DIODES

V_Z : 3.9 to 100V
P_D : 1.3W

DO - 41 Glass
(DO-204AL)



Dimensions in inches and (millimeters)

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

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(1)	W
Thermal Resistance Junction to Ambient Air	$R_{\theta JA}$	130(1)	°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 (1) V_Z @ I_{ZT}		Test Current	Dynamic Resistance	Reverse Voltage at I_R = 0.5mA	Admissible Zener Current	Temp. coefficient of Zener Voltage
	Min.	Max.	I_{ZT}	at I_{ZT}, f = 1kHz	V_R	I_Z (2)	a_{VZ}(10^{-4} / °C)
	(V)	(V)	(mA)	r_{zj} (W)	(V)	(mA)	min. max.
ZPY3.9	3.7	4.1	100	4 (< 7)	-	290	-7 +2
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 tp = 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