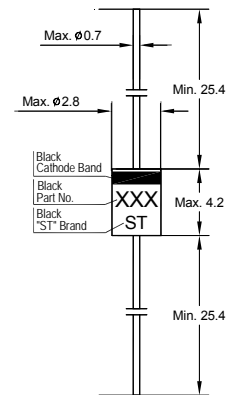


ZPY3V9...ZPY82

ZENER DIODES

Features

- Silicon planar power Zener diodes
- For use in stabilizing and clipping circuits with high power rating.

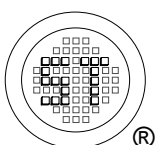


Glass Case DO-41
Dimensions in mm

Absolute Maximum Ratings ($T_a = 25\text{ }^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Power Dissipation	P_{tot}	1.3 ¹⁾	W
Thermal Resistance Junction to Ambient Air	$R_{\theta\text{JA}}$	130 ¹⁾	$^\circ\text{C/W}$
Junction Temperature	T_J	175	$^\circ\text{C}$
Storage Temperature Range	T_S	- 55 to + 175	$^\circ\text{C}$

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



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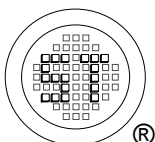
ZPY3V9...ZPY82

Characteristics at $T_a = 25\text{ }^\circ\text{C}$

Type	Zener Voltage V_Z (V) ²⁾ at I_{ZT}		Dynamic Resistance r_{zj} (Ω) at I_{ZT} f = 1 KHz	Test Current I_{ZT} (mA)	Min. Reverse Voltage at $I_R = 0.5\ \mu\text{A}$ V_R (V)	Admissible Zener Current I_Z (mA) ¹⁾
	Min.	Max.	Max.			
ZPY3V9	3.7	4.1	7	100	-	290
ZPY4V3	4	4.6	7	100	-	260
ZPY4V7	4.4	5	7	100	-	235
ZPY5V1	4.8	5.4	5	100	0.7	215
ZPY5V6	5.2	6	2	100	1.5	193
ZPY6V2	5.8	6.6	2	100	2	183
ZPY6V8	6.4	7.2	2	100	3	157
ZPY7V5	7	7.9	2	100	5	143
ZPY8V2	7.7	8.7	2	100	6	127
ZPY9V1	8.5	9.6	4	50	7	117
ZPY10	9.41	10.6	4	50	7.5	105
ZPY11	10.4	11.6	7	50	8.5	94
ZPY12	11.4	12.7	7	50	9	85
ZPY13	12.4	14.1	9	50	10	78
ZPY15	13.8	15.8	9	50	11	70
ZPY16	15.3	17.1	10	25	12	63
ZPY18	16.8	19.1	11	25	14	57
ZPY20	18.8	21.2	12	25	15	52
ZPY22	20.8	23.3	13	25	17	48
ZPY24	22.8	25.6	14	25	18	42
ZPY27	25.1	28.9	15	25	20	38
ZPY30	28	32	20	25	22.5	35
ZPY33	31	35	20	25	25	31
ZPY36	34	38	60	10	27	29
ZPY39	37	41	60	10	29	26
ZPY43	40	46	80	10	32	24
ZPY47	44	50	80	10	35	22
ZPY51	48	54	100	10	38	20
ZPY56	52	60	100	10	42	18
ZPY62	58	66	130	10	47	16
ZPY68	64	72	130	10	51	14
ZPY75	70	79	160	10	56	13
ZPY82	77	88	160	10	61	12

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

²⁾ Tested with pulses $t_p = 20\text{ ms}$.



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ISO/TS 16949 : 2002
Certificate No. 05103



ISO 14001:2004
Certificate No. 7116

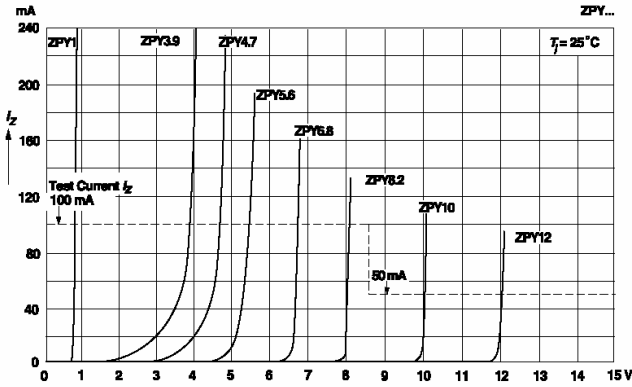


ISO 9001:2000
Certificate No. 0506098

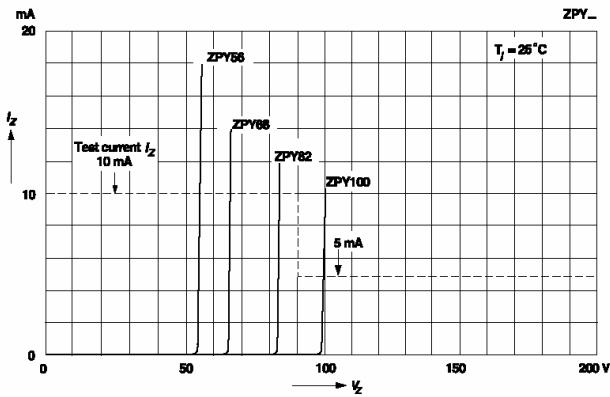
Dated : 12/06/2007

ZPY3V9...ZPY82

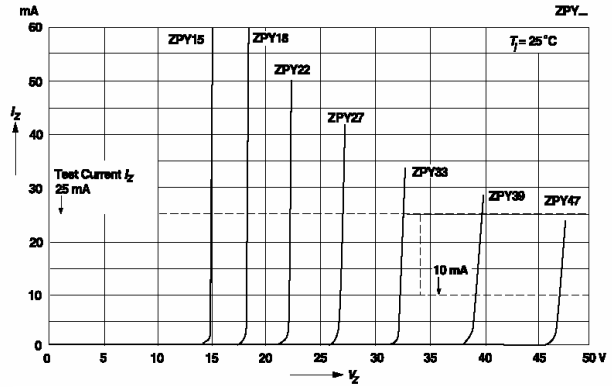
Breakdown characteristics
 $T_j = \text{constant (pulsed)}$



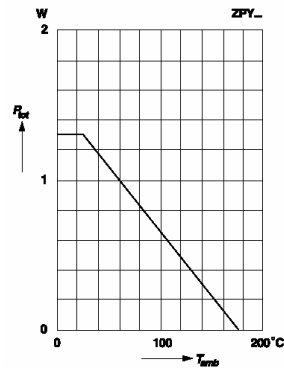
Breakdown characteristics
 $T_j = \text{constant (pulsed)}$



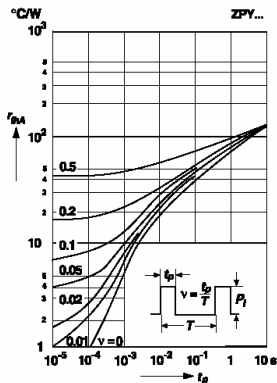
Breakdown characteristics
 $T_j = \text{constant (pulsed)}$



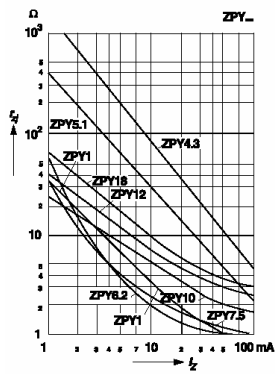
Admissible power dissipation
 versus ambient temperature
 Valid provided that leads are kept at ambient temperature
 at a distance of 10 mm from case



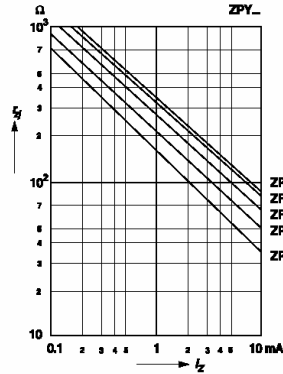
Pulse thermal resistance
 versus pulse duration
 Valid provided that leads are kept
 at ambient temperature at a distance of 10 mm from case



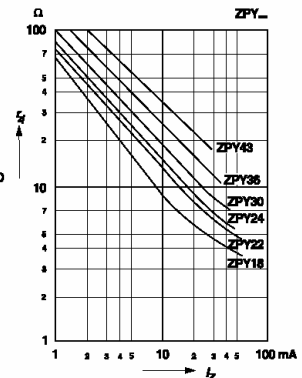
Dynamic resistance
 versus Zener current



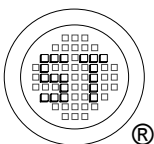
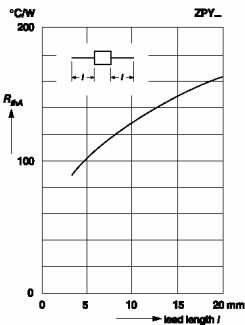
Dynamic resistance
 versus Zener current



Dynamic resistance
 versus Zener current



Thermal resistance
 versus lead length



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