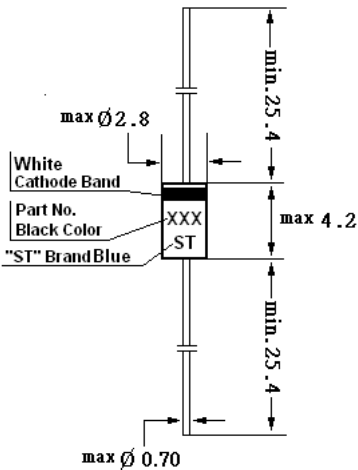


ZPY3B9 THRU ZPYB82

ZENER DIODES

Features

- Silicon planar power zener diodes
- For use in stabilizing and clipping circuits with high power rating.
- The zener voltage tolerances $\pm 2\%$.

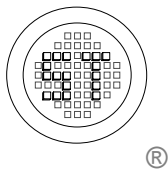


Glass Case JEDEC DO-41
Dimensions in mm

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	$R_{\theta JA}$	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 10mm from case are kept at ambient temperature.



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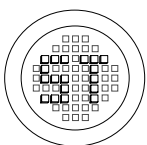
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Characteristics at $T_a = 25^\circ\text{C}$

Type	Zener Voltage at I_{ZT} V_Z (V) ²⁾		Dynamic Resistance at I_{ZT} $f = 1$ KHz r_{zj} (Ω)	Temp. Coeff. of Zener Voltage at I_{ZT} αV_Z ($10^{-4}/^\circ\text{C}$)		Test Current I_{ZT} (mA)	Reverse Voltage at $I_R = 0.5 \mu\text{A}$ V_R (V)	Admissible Zener Current at $T_a = 25^\circ\text{C}$ I_Z (mA) ¹⁾
	Min.	Max.		Min.	Max.			
ZPY3B9	3.82	3.98	< 7	-7	2	100	-	290
ZPY4B3	4.21	4.39	< 7	-7	3	100	-	260
ZPY4B7	4.61	4.79	< 7	-7	4	100	-	235
ZPY5B1	5	5.2	< 5	-6	5	100	> 0.7	215
ZPY5B6	5.49	5.71	< 2	-3	5	100	> 1.5	193
ZPY6B2	6.08	6.32	< 2	-1	6	100	> 2	183
ZPY6B8	6.66	6.94	< 2	0	7	100	> 3	157
ZPY7B5	7.35	7.65	< 2	0	7	100	> 5	143
ZPY8B2	8.04	8.36	< 2	3	8	100	> 6	127
ZPY9B1	8.92	9.28	< 4	3	8	50	> 7	117
ZPYB10	9.8	10.2	< 4	5	9	50	> 7.5	105
ZPYB11	10.78	11.22	< 7	5	10	50	> 8.5	94
ZPYB12	11.76	12.24	< 7	5	10	50	> 9	85
ZPYB13	12.74	13.26	< 9	5	10	50	> 10	78
ZPYB15	14.7	15.3	< 9	5	10	50	> 11	70
ZPYB16	15.68	16.32	< 10	7	11	25	> 12	63
ZPYB18	17.64	18.36	< 11	7	11	25	> 14	57
ZPYB20	19.6	20.4	< 12	7	11	25	> 15	52
ZPYB22	21.56	22.44	< 13	7	11	25	> 17	48
ZPYB24	23.52	24.48	< 14	7	12	25	> 18	42
ZPYB27	26.46	27.54	< 15	7	12	25	> 20	38
ZPYB30	29.4	30.6	< 20	7	12	25	> 22.5	35
ZPYB33	32.34	33.66	< 20	7	12	25	> 25	31
ZPYB36	35.28	36.72	< 60	7	12	10	> 27	29
ZPYB39	38.22	39.78	< 60	8	12	10	> 29	26
ZPYB43	42.14	43.86	< 80	8	13	10	> 32	24
ZPYB47	46.06	47.94	< 80	8	13	10	> 35	22
ZPYB51	49.98	52.02	< 100	8	13	10	> 38	20
ZPYB56	54.88	57.12	< 100	8	13	10	> 42	18
ZPYB62	60.76	63.24	< 130	8	13	10	> 47	16
ZPYB68	66.64	69.36	< 130	8	13	10	> 51	14
ZPYB75	73.5	76.5	< 160	8	13	10	> 56	13
ZPYB82	80.36	83.64	< 160	8	13	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 $t_p = 20$ ms.



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Certificate No. 7116



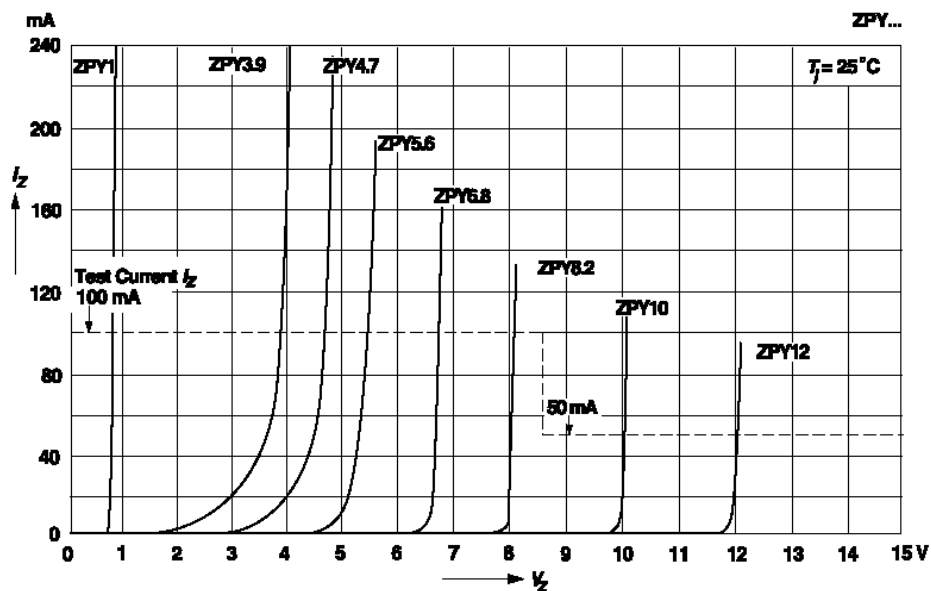
ISO 9001:2000
Certificate No. 0506098

Dated : 05/05/2006

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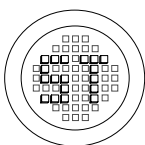
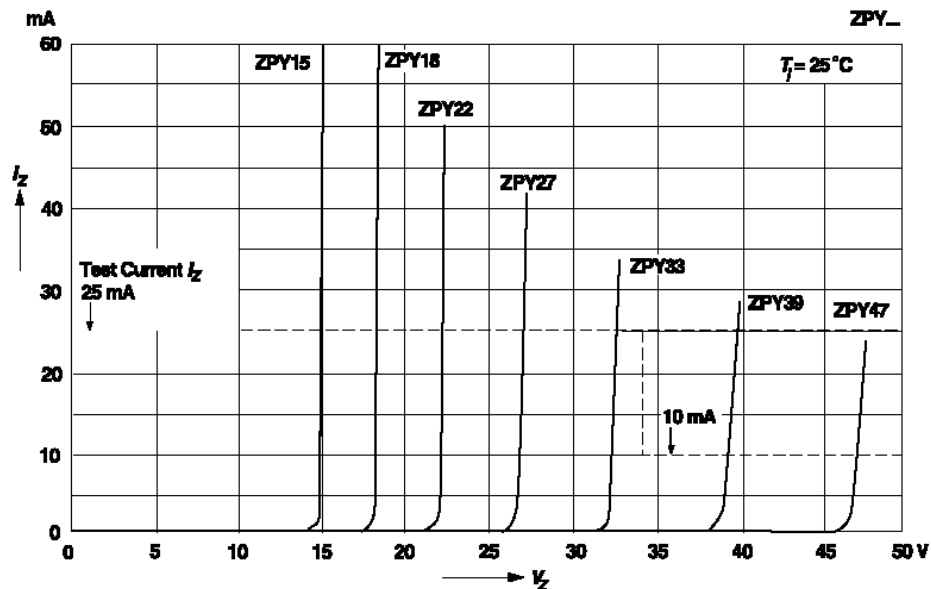
Breakdown characteristics

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



Breakdown characteristics

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



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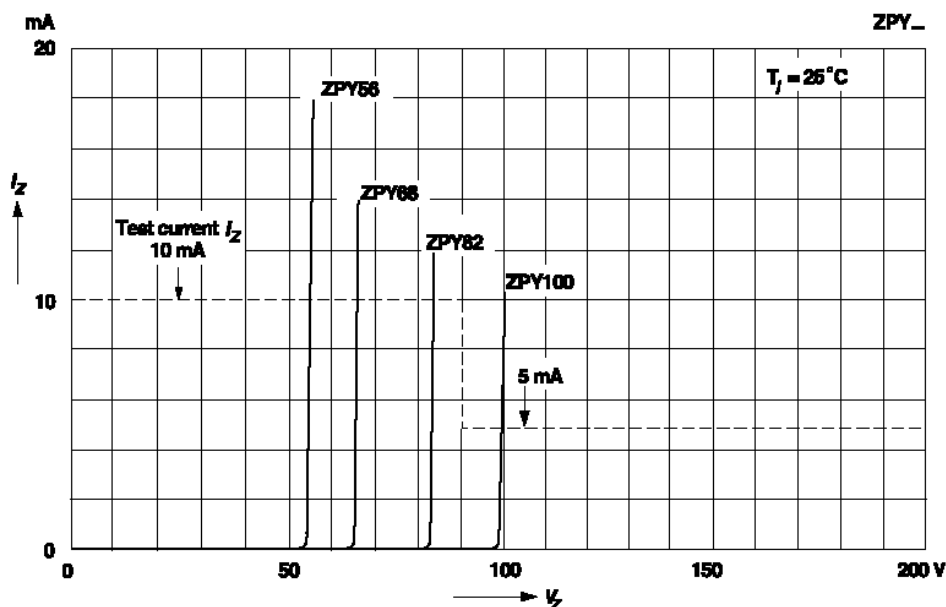
ISO 9001:2000
Certificate No. 0506098

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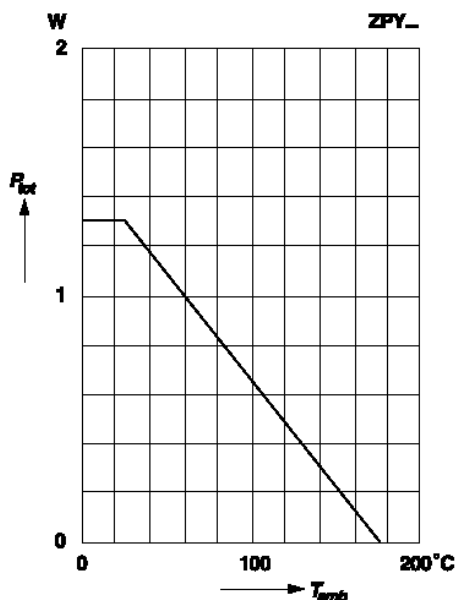
Breakdown characteristics

$T_j = \text{constant (pulse)}$



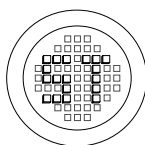
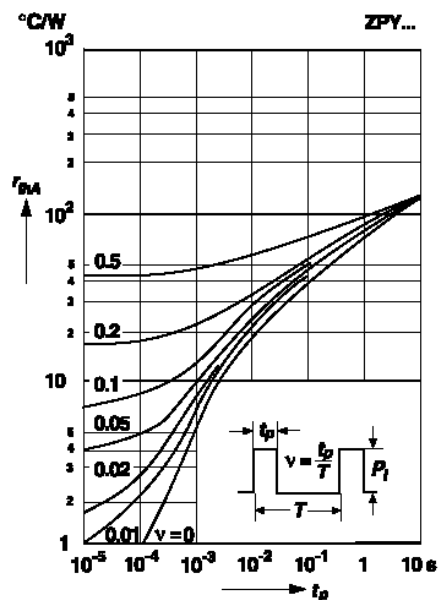
Admissible power dissipation versus ambient temperature

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



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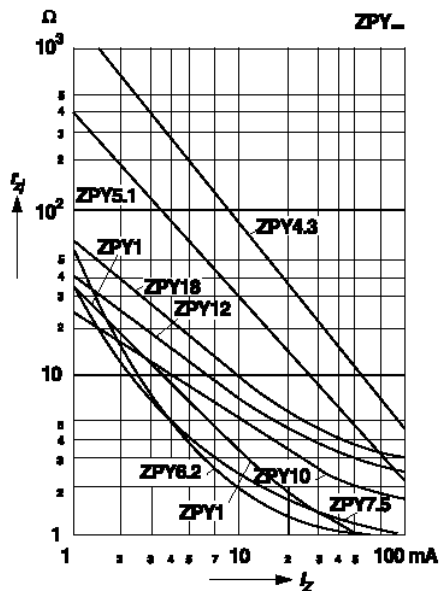


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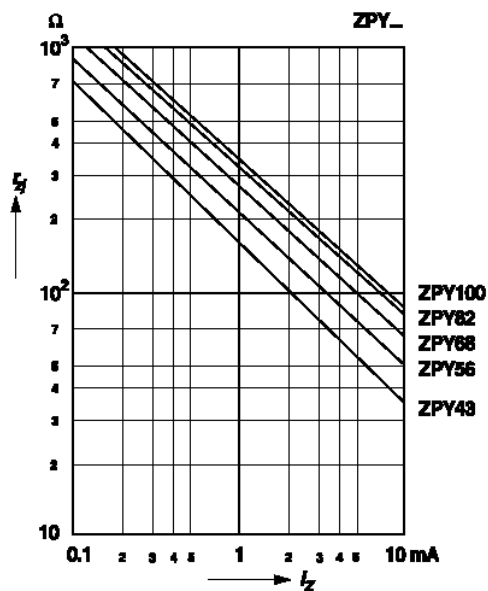
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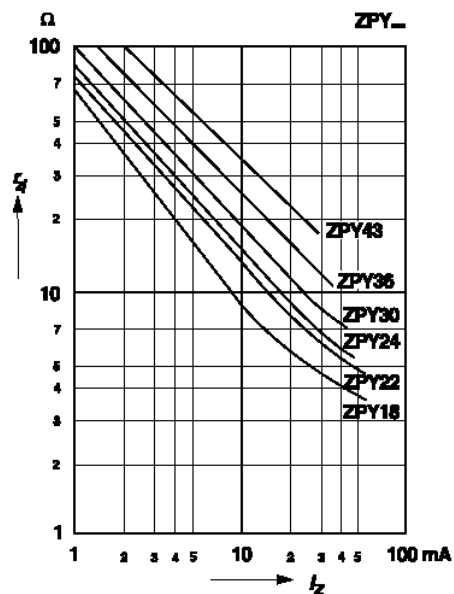
Dynamic resistance
versus Zener current



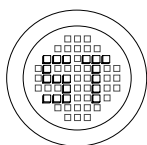
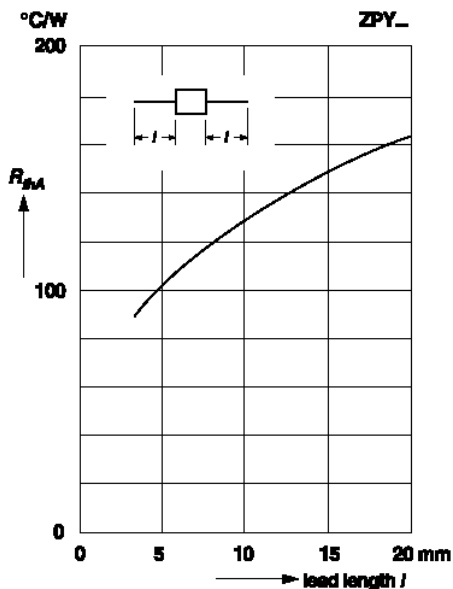
Dynamic resistance
versus Zener current



Dynamic resistance
versus Zener current



Thermal resistance
versus lead length



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