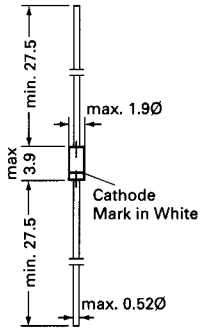
ZPD 2.7 ... ZPD 51
SILICON PLANAR ZENER DIODES

Silicon Expitaxial Planar Diode
The Zener voltages are graded according to the international E 24 standard. Smaller voltage tolerances and higher Zener voltages on request.



Glass case JEDEC DO-35

Dimensions in mm

Absolute Maximum Ratings (T_a = 25 °C)

	Symbol	Value	Unit
Zener Current see Table "Characteristics"			
Power Dissipation at T_{amb} = 25 °C	P_{tot}	500[1)]	mW
Junction Temperature	T_j	175	°C
Storage Temperature Range	T_S	-55 to + 175	°C
[1)] Valid provided that leads are kept at ambient temperature at a distance of 8 mm from case			

Characteristics at T_{amb} = 25 °C

	Symbol	Min.	Typ.	Max.	Unit
Thermal Resistance Junction to Ambient Air	R_{thA}	-	-	0.3[1)]	K/mW
[1)] Valid provided that leads are kept at ambient temperature at a distance of 8 mm from case.					

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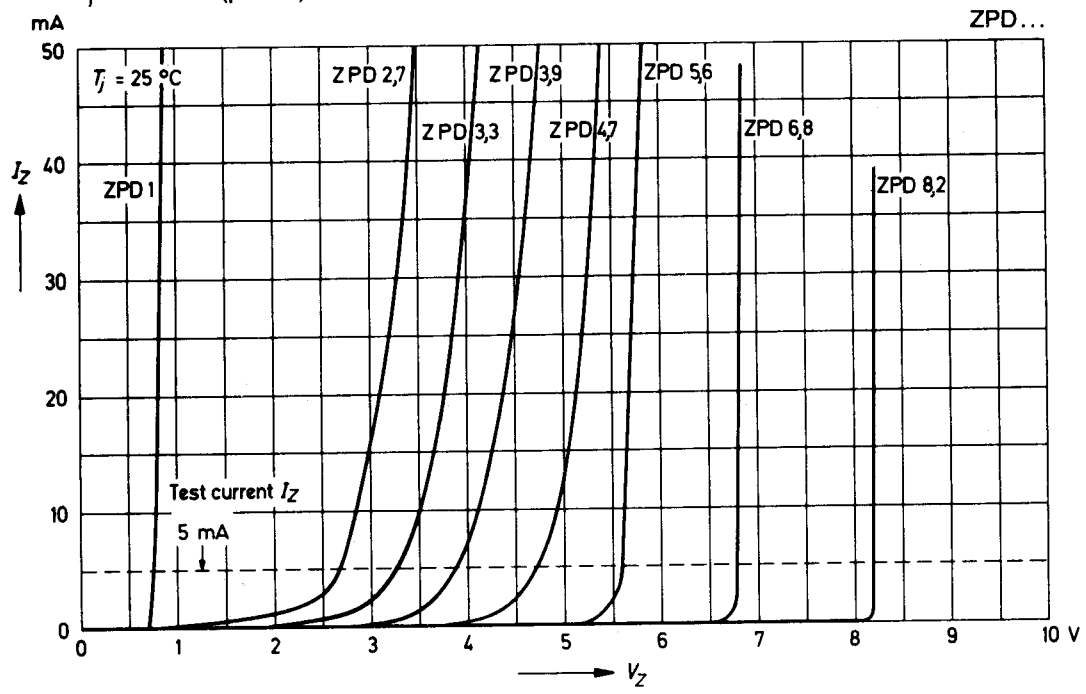
Type	Zener Voltage range[1]			Dynamic resistance			Temp. coeff. of Zener Volt. at	Reverse Voltage at	Admissible Zener Current[2] at	at
	V_{Znom}	I_{ZT} for V_{ZT}[2]		r_{zjT}	r_{zjK} at I_{ZK}		I_z=5mA	I=100nA	T_{amb}=45°C	T_{amb}=25°C
	V	mA	V	Ω	Ω	mA	α_{VZ} 10^{-4}/K	V_R V	I_Z mA	I_Z mA
ZPD2.7	2.7	5	2.5 ... 2.9	(<83)	<50	1	-9 ... -4	-	135	160
ZPD3	3.0	5	2.8 ... 3.2	(<95)	<500	1	-9 ... -3	-	117	140
ZPD3.3	3.3	5	3.1 ... 3.5	(<95)	<500	1	-8 ... -3	-	109	130
ZPD3.6	3.6	5	3.4 ... 3.8	(<95)	<500	1	-8 ... -3	-	101	120
ZPD3.9	3.9	5	3.7 ... 4.1	(<95)	<500	1	-7 ... -3	-	92	110
ZPD4.3	4.3	5	4.0 ... 4.6	(<95)	<500	1	-6 ... -1	-	85	100
ZPD4.7	4.7	5	4.4 ... 5.0	(<78)	<500	1	-5 ... +2	-	76	90
ZPD5.1	5.1	5	4.8 ... 5.4	(<60)	<480	1	-3 ... +4	>0.8	67	80
ZPD5.6	5.6	5	5.2 ... 6.0	(<40)	<400	1	-2 ... +6	>1	49	70
ZPD6.2	6.2	5	5.8 ... 6.6	(<10)	<200	1	-1 ... +7	>2	54	64
ZPD6.8	6.8	5	6.4 ... 7.2	(<8)	<150	1	+2 ... +7	>3	49	58
ZPD7.5	7.5	5	7.0 ... 7.9	(<7)	<50	1	+3 ... +7	>5	44	53
ZPD8.2	8.2	5	7.7 ... 8.7	(<7)	<50	1	+4 ... +7	>6	40	47
ZPD9.1	9.1	5	8.5 ... 9.6	(<10)	<50	1	+5 ... +8	>7	36	43
ZPD10	10	5	9.4 ... 10.6	(<15)	<70	1	+5 ... +8	>7.5	33	40
ZPD11	11	5	10.4 ... 11.6	(<20)	<70	1	+5 ... +9	>8.5	30	36
ZPD12	12	5	11.4 ... 12.7	(<20)	<90	1	+6 ... +9	>9	28	32
ZPD13	13	5	12.4 ... 14.1	(<25)	<110	1	+7 ... +9	>10	25	29
ZPD15	15	5	13.8 ... 15.6	(<30)	<110	1	+7 ... +9	>11	23	27
ZPD16	16	5	15.3 ... 17.1	(<40)	<170	1	+8 ... +9.5	>12	20	24
ZPD18	18	5	16.8 ... 19.1	(<50)	<170	1	+8 ... +9.5	>14	18	21
ZPD20	20	5	18.8 ... 21.2	(<50)	<220	1	+8 ... +10	>15	17	20
ZPD22	22	5	20.8 ... 23.3	(<55)	<220	1	+8 ... +10	>17	16	18
ZPD24	24	5	22.8 ... 25.6	(<80)	<220	1	+8 ... +10	>18	13	16
ZPD27	27	5	25.1 ... 28.9	(<80)	<250	1	+8 ... +10	>20	12	14
ZPD30	30	5	28 ... 32	(<80)	<250	1	+8 ... +10	>22.5	10	13
ZPD33	33	5	31 ... 35	(<80)	<250	1	+8 ... +10	>25	9	12
ZPD36	36	5	34 ... 38	(<90)	<250	1	+8 ... +10	>27	9	11
ZPD39	39	5	37 ... 41	(<90)	<300	1	+10 ... +12	>29	8	10
ZPD43	43	5	40 ... 46	(<100)	<700	1	+10 ... +12	>32	7	9.2
ZPD47	47	5	44 ... 50	(<100)	<750	1	+10 ... +12	>35	6	8.5
ZPD51	51	5	48 ... 54	(<100)	<750	1	+10 ... +12	>38	6	7.8

[1] Tested with pulses tp = 20 ms.

[2] Valid provided that leads are kept at ambient temperature at a distance of 8 mm from case.

Breakdown characteristics
T_j = constant (pulsed)



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T_j = constant (pulsed)