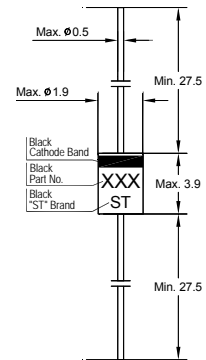


ZPD1...ZPD75

Silicon Epitaxial Planar Zener Diodes



Glass Case DO-35
Dimensions in mm

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

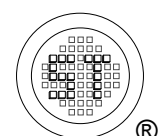
Parameter	Symbol	Value	Unit
Power Dissipation	P_{tot}	500 ¹⁾	mW
Junction Temperature	T_j	175	°C
Storage Temperature Range	T_{stg}	- 55 to + 175	°C

¹⁾ Valid provided that leads are kept at ambient temperature at a distance of 8 mm from case.

Characteristics at $T_a = 25\text{ °C}$

Parameter	Symbol	Max.	Unit
Thermal Resistance Junction to Ambient Air	R_{thA}	0.3 ¹⁾	K/mW
Forward Voltage at $I_F = 100\text{ mA}$	V_F	1	V

¹⁾ Valid provided that leads are kept at ambient temperature at a distance of 8 mm from case.



ZPD1...ZPD75

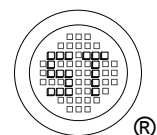
Characteristics ($T_a = 25\text{ °C}$ unless otherwise noted)

Type	Zener Voltage Range ¹⁾			Dynamic Resistance			Min. Reverse Voltage V_R (V) at $I_R = 100\text{ nA}$	Admissible Zener Current ²⁾	
	V_{Znom}	V_{ZT}	at I_{ZT}	Z_{ZT}	Z_{ZK}	at I_{ZK}		at $T_a = 45\text{ °C}$	at $T_a = 25\text{ °C}$
	(V)	(V)	(mA)	Max.(Ω)	Max.(Ω)	(mA)		I_Z (mA)	I_Z (mA)
ZPD1 ³⁾	-	0.7...0.8	5	8	50	1	-	280	340
ZPD2V7	2.7	2.5...2.9	5	83	500	1	-	135	160
ZPD3V0	3.0	2.8...3.2	5	95	500	1	-	117	140
ZPD3V3	3.3	3.1...3.5	5	95	500	1	-	109	130
ZPD3V6	3.6	3.4...3.8	5	95	500	1	-	101	120
ZPD3V9	3.9	3.7...4.1	5	95	500	1	-	92	110
ZPD4V3	4.3	4...4.6	5	95	500	1	-	85	100
ZPD4V7	4.7	4.4...5	5	78	500	1	-	76	90
ZPD5V1	5.1	4.8...5.4	5	60	480	1	0.8	67	80
ZPD5V6	5.6	5.2...6	5	40	400	1	1	59	70
ZPD6V2	6.2	5.8...6.6	5	10	200	1	2	54	64
ZPD6V8	6.8	6.4...7.2	5	8	150	1	3	49	58
ZPD7V5	7.5	7...7.9	5	7	50	1	5	44	53
ZPD8V2	8.2	7.7...8.7	5	7	50	1	6	40	47
ZPD9V1	9.1	8.5...9.6	5	10	50	1	7	36	43
ZPD10	10	9.4...10.6	5	15	70	1	7.5	33	40
ZPD11	11	10.4...11.6	5	20	70	1	8.5	30	36
ZPD12	12	11.4...12.7	5	20	90	1	9	28	32
ZPD13	13	12.4...14.1	5	25	110	1	10	25	29
ZPD15	15	13.8...15.6	5	30	110	1	11	23	27
ZPD16	16	15.3...17.1	5	40	170	1	12	20	24
ZPD18	18	16.8...19.1	5	50	170	1	14	18	21
ZPD20	20	18.8...21.2	5	50	220	1	15	17	20
ZPD22	22	20.8...23.3	5	55	220	1	17	16	18
ZPD24	24	22.8...25.6	5	80	220	1	18	13	16
ZPD27	27	25.1...28.9	5	80	250	1	20	12	14
ZPD30	30	28...32	5	80	250	1	22.5	10	13
ZPD33	33	31...35	5	80	250	1	25	9	12
ZPD36	36	34...38	5	90	250	1	27	9	11
ZPD39	39	37...41	5	90	300	1	29	8	10
ZPD43	43	40...46	5	100	700	1	32	7	9.2
ZPD47	47	44...50	5	100	750	1	35	6	8.5
ZPD51	51	48...54	5	100	750	1	38	6	7.8
ZPD56	56	52...60	2.5	135	1000	0.5	42	5.2	7.1
ZPD62	62	58...66	2.5	150	1000	0.5	47	4.8	6.4
ZPD68	68	64...72	2.5	200	1000	0.5	51	4.1	5.8
ZPD75	75	70...79	2.5	250	1500	0.5	55	3.9	5.3

¹⁾ Tested with pulses $t_p = 20\text{ ms}$.

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

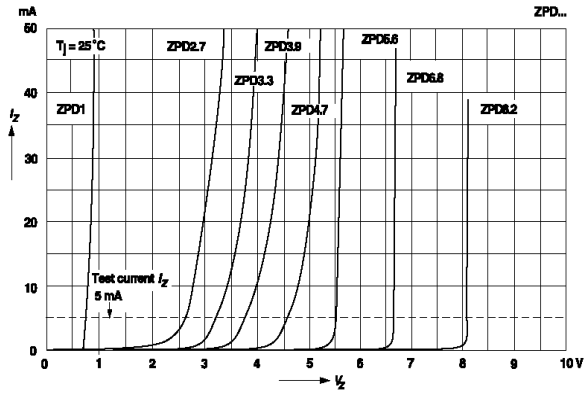
³⁾ The ZPD1 is a silicon diode operated in forward direction. Hence, the subscript of all parameter should be "F" instead of "Z". Connect the cathode terminal to the negative pole.



ZPD1...ZPD75

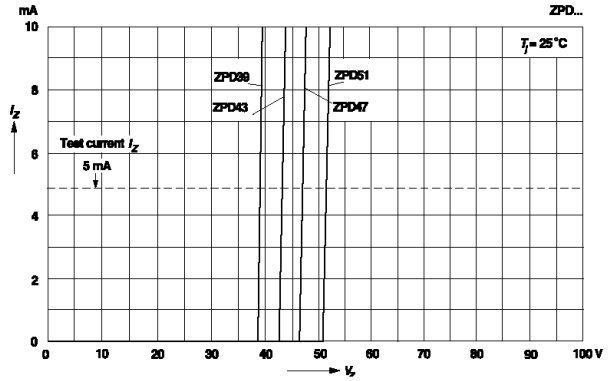
Breakdown characteristics

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



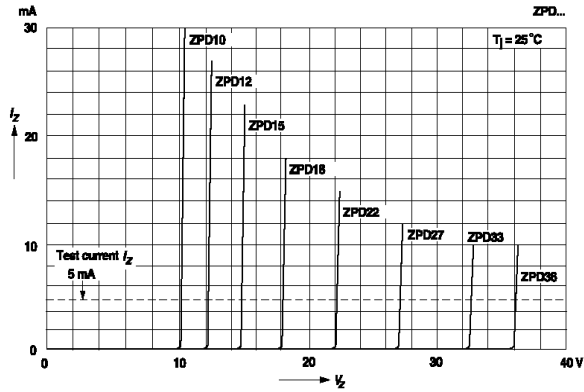
Breakdown characteristics

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

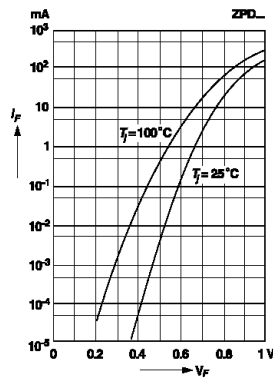


Breakdown characteristics

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



Forward characteristics



Admissible power dissipation versus ambient temperature

Valid provided that leads at a distance of 4 mm from case are kept at ambient temperature

