

## ZPD2.7 THRU ZPD51

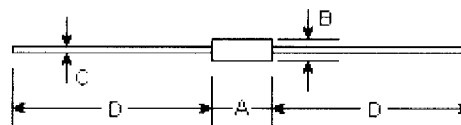
### SILICON PLANAR ZENER DIODES

#### Features

##### Silicon Planar Zener Diodes

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

#### DO-35



DIM	DIMENSIONS				Note
	inches		mm		
	Min.	Max.	Min.	Max.	
A	-	0.154	-	3.9	
B	-	0.075	-	1.9	φ
C	-	0.020	-	0.52	φ
D	1.083	-	27.50	-	

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

	Symbols	Values	Units
Zener current see Table "Characteristics"			
Power dissipation at $T_{amb}=25^\circ\text{C}$	$P_{tot}$	500 <sup>(1)</sup>	mW
Junction temperature	$T_j$	175	$^\circ\text{C}$
Storage temperature range	$T_s$	-55 to +175	$^\circ\text{C}$

Note:

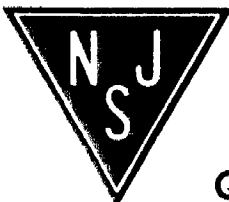
(1) Valid provided that leads at a distance of 8 mm from case are kept at ambient temperature.

#### Characteristics at $T_{amb}=25^\circ\text{C}$

	Symbols	Min.	Typ.	Max.	Units
Thermal resistance junction to ambient Air	$R_{thA}$	-	-	0.3 <sup>(1)</sup>	K/mW

Note:

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Type	Zener voltage range <sup>1)</sup>			Dynamic resistance			Temp. coeff. of Zener Volt. at I <sub>Z</sub> =5mA	Reverse voltage at I=100nA	Admissible Zener current <sup>2)</sup>			
	V <sub>znom</sub>	I <sub>ZT</sub> for V <sub>ZT</sub> <sup>2)</sup>		r <sub>ZT</sub> and r <sub>ZK</sub> at I <sub>ZK</sub>					α <sub>VZ</sub>	V <sub>R</sub>	at T <sub>amb</sub> =45°C	at T <sub>amb</sub> =25°C
	V	mA	V	Ω	Ω	mA			10 <sup>-4</sup> /K	V	I <sub>Z</sub> mA	I <sub>Z</sub> 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	59	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		

Notes:

(1) Tested with pulses tp=20ms.

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