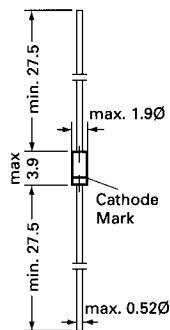


# 1N 957 ... 1N 978

## SILICON PLANAR ZENER DIODES

### Silicon Planar Zener Diodes

Standard Zener voltage tolerance is  $\pm 20\%$ . Add suffix "A" for  $\pm 10\%$  tolerance and suffix "B" for  $\pm 5\%$  tolerance. Other tolerance, non standard and higher Zener voltages upon request.



Glass case JEDEC DO-35

Dimensions in mm

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

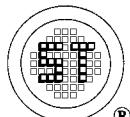
	Symbol	Value	Unit
Zener Current see Table "Characteristics"			
Power Dissipation at $T_{amb} = 50^\circ C$	$P_{tot}$	400 <sup>1)</sup>	mW
Junction Temperature	$T_j$	175	$^\circ C$
Storage Temperature Range	$T_{stg}$	-65 to + 175	$^\circ C$

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

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

	Symbol	Min.	Typ	Max	Unit
Thermal Resistance Junction to Ambient Air	$R_{thA}$	-	-	0.3 <sup>1)</sup>	K/mW
Forward Voltage at $I_F = 200$ mA	$V_F$	-	-	1.5	V

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



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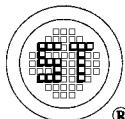


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**SILICON PLANAR ZENER DIODES**

Type	Zener Voltage range <sup>1)</sup>		Dynamic resistance		Typical Temperature coefficient (% / °C)	$I_R^{(2)}$ μA	Maximum Reverse Leakage Current		Maximum Regulator Current $I_{ZM}$ mA
	$V_{znom}$ V	$I_{ZT}$ mA	$r_{ZJT}$ Ω	$r_{Zjk}$ at $I_{Zk}$ Ω			Test - Voltage Suffix A V	Test - Voltage Suffix B V	
<b>1N957</b>	6.8	18.5	4.5	700	1.0	0.050	150	4.9	5.2
<b>1N958</b>	7.5	16.5	5.5	700	0.5	0.058	75	5.4	5.7
<b>1N959</b>	8.2	15	6.5	700	0.5	0.062	50	5.9	6.2
<b>1N960</b>	9.1	14	7.5	700	0.5	0.068	25	6.6	6.9
<b>1N961</b>	10	12.5	8.5	700	0.25	0.075	10	7.2	7.6
<b>1N962</b>	11	11.5	9.5	700	0.25	0.076	5	8.0	8.4
<b>1N963</b>	12	10.5	11.5	700	0.25	0.077	5	8.6	9.1
<b>1N964</b>	13	9.5	13	700	0.25	0.079	5	9.4	9.9
<b>1N965</b>	15	8.5	16	700	0.25	0.082	5	10.8	11.4
<b>1N966</b>	16	7.8	17	700	0.25	0.083	5	11.5	12.2
<b>1N967</b>	18	7.0	21	750	0.25	0.085	5	13.0	13.7
<b>1N968</b>	20	6.2	25	750	0.25	0.086	5	14.4	15.2
<b>1N969</b>	22	5.6	29	750	0.25	0.087	5	15.8	16.7
<b>1N970</b>	24	5.2	33	750	0.25	0.088	5	17.3	18.2
<b>1N971</b>	27	4.6	41	750	0.25	0.090	5	19.4	20.6
<b>1N972</b>	30	4.2	49	1000	0.25	0.091	5	21.6	22.8
<b>1N973</b>	33	3.8	58	1000	0.25	0.092	5	23.8	25.1
<b>1N974</b>	36	3.4	70	1000	0.25	0.093	5	25.9	27.4
<b>1N975</b>	39	3.2	80	1000	0.25	0.094	5	28.1	29.7
<b>1N976</b>	43	3.0	93	1500	0.25	0.095	5	31.0	32.7
<b>1N977</b>	47	2.7	105	1500	0.25	0.095	5	33.8	35.8
<b>1N978</b>	51	2.5	125	1500	0.25	0.095	5	36.7	38.8
									5.9

<sup>1)</sup> Tested with pulses  $t_p = 20$  ms.

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



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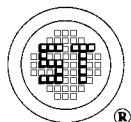
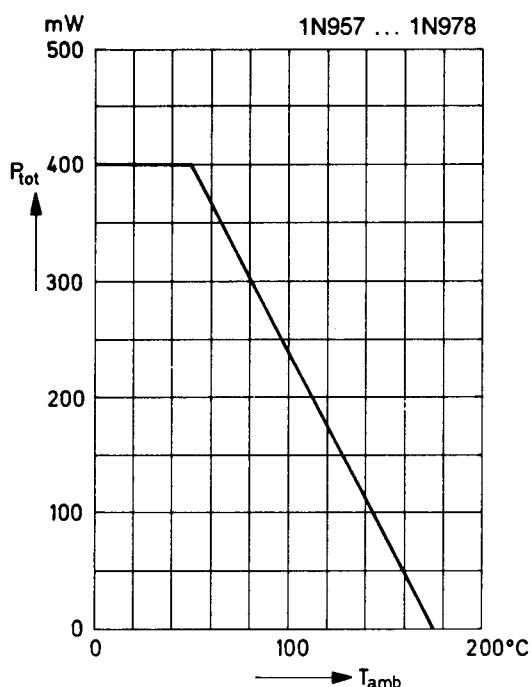


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## SILICON PLANAR ZENER DIODES

### Admissible power dissipation versus ambient temperature

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



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