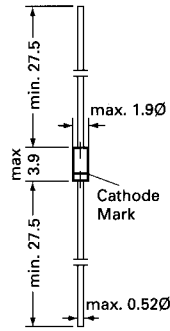


# 1N 957 ... 1N 978 SILICON PLANAR ZENER DIODES

## 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

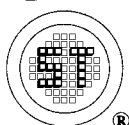
Dimensions in mm

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

	Symbol	Value	Unit
Zener Current see Table " Characteristics "			
Power Dissipation at $T_{amb} = 50\text{ }^\circ\text{C}$	$P_{tot}$	400 <sup>1)</sup>	mW
Junction Temperature	$T_j$	175	$^\circ\text{C}$
Storage Temperature Range	$T_{stg}$	-65 to + 175	$^\circ\text{C}$
<sup>1)</sup> Valid provided that leads at a distance of 8 mm from case are kept at ambient temperature.			

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

	Symbol	Min.	Typ	Max	Unit
Thermal Resistance Junction to Ambient Air	$R_{thA}$	-	-	0.3 <sup>1)</sup>	K/mW
Forward Voltage at $I_F = 200\text{ mA}$	$V_F$	-	-	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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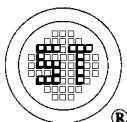
# 1N 957 ... 1N 978

## SILICON PLANAR ZENER DIODES

Type	Zener Voltage range <sup>1)</sup>		Dynamic resistance			Typical Temperature coefficient (% / °C)	Maximum Reverse Leakage Current			Maximum Regulator Current $I_{ZM}$
	$V_{znom}$	$I_{ZT}$	$r_{zJT}$	$r_{zk}$ at $I_{zk}$			$I_R$ <sup>2)</sup>	Test - Voltage		
	V	mA	$\Omega$	$\Omega$	mA		$\mu A$	Suffix A V	Suffix B V	
<b>1N957</b>	6.8	18.5	4.5	700	1.0	0.050	150	4.9	5.2	47
<b>1N958</b>	7.5	16.5	5.5	700	0.5	0.058	75	5.4	5.7	42
<b>1N959</b>	8.2	15	6.5	700	0.5	0.062	50	5.9	6.2	38
<b>1N960</b>	9.1	14	7.5	700	0.5	0.068	25	6.6	6.9	35
<b>1N961</b>	10	12.5	8.5	700	0.25	0.075	10	7.2	7.6	32
<b>1N962</b>	11	11.5	9.5	700	0.25	0.076	5	8.0	8.4	28
<b>1N963</b>	12	10.5	11.5	700	0.25	0.077	5	8.6	9.1	26
<b>1N964</b>	13	9.5	13	700	0.25	0.079	5	9.4	9.9	24
<b>1N965</b>	15	8.5	16	700	0.25	0.082	5	10.8	11.4	21
<b>1N966</b>	16	7.8	17	700	0.25	0.083	5	11.5	12.2	19
<b>1N967</b>	18	7.0	21	750	0.25	0.085	5	13.0	13.7	17
<b>1N968</b>	20	6.2	25	750	0.25	0.086	5	14.4	15.2	15
<b>1N969</b>	22	5.6	29	750	0.25	0.087	5	15.8	16.7	14
<b>1N970</b>	24	5.2	33	750	0.25	0.088	5	17.3	18.2	13
<b>1N971</b>	27	4.6	41	750	0.25	0.090	5	19.4	20.6	11
<b>1N972</b>	30	4.2	49	1000	0.25	0.091	5	21.6	22.8	10
<b>1N973</b>	33	3.8	58	1000	0.25	0.092	5	23.8	25.1	9.0
<b>1N974</b>	36	3.4	70	1000	0.25	0.093	5	25.9	27.4	8.5
<b>1N975</b>	39	3.2	80	1000	0.25	0.094	5	28.1	29.7	7.8
<b>1N976</b>	43	3.0	93	1500	0.25	0.095	5	31.0	32.7	7.0
<b>1N977</b>	47	2.7	105	1500	0.25	0.095	5	33.8	35.8	6.4
<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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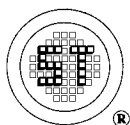
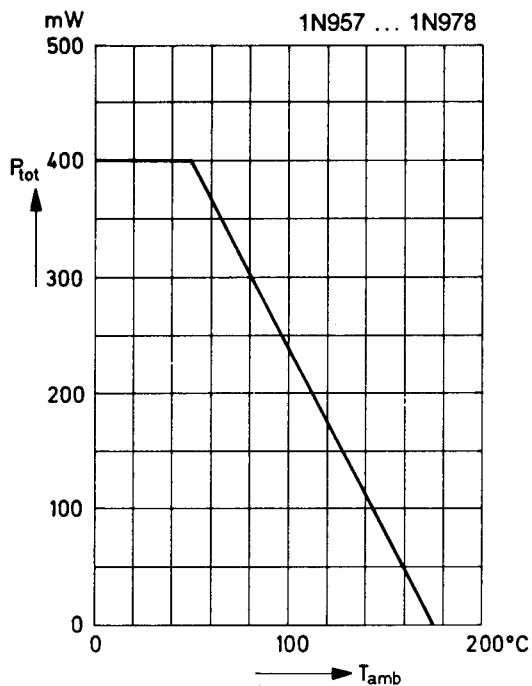
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## Admissible power dissipation versus ambient temperature

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



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ISO 9002:84  
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