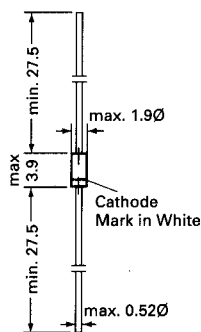


# BZX 97... SILICON PLANAR ZENER DIODES

## Silicon Epitaxial Planar Diode

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



Glass case JEDEC DO-35

Dimensions in mm

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

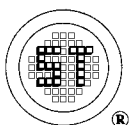
	Symbol	Value	Unit
Zener Current see Table "Characteristics"			
Power Dissipation at $T_{amb} = 25\text{ }^\circ\text{C}$	$P_{tot}$	500 <sup>1)</sup>	mW
Junction Temperature	$T_j$	175	$^\circ\text{C}$
Storage Temperature Range	$T_s$	-55 to + 175	$^\circ\text{C}$

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

## 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 $I_F = 100\text{ mA}$	$V_F$	-	-	1	V

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



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# BZX 97 ...

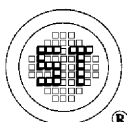
## SILICON PLANAR ZENER DIODES

Type	Zener Voltage range <sup>1)</sup>			Dynamic resistance			Reverse leakage current			Temp. coefficient of Zener Voltage
	V <sub>Znom</sub> V	I <sub>ZT</sub> for V <sub>ZT</sub> <sup>3)</sup>		r <sub>zIT</sub>	r <sub>zjK</sub> at I <sub>ZK</sub>		T <sub>a</sub> =25°C	T <sub>a</sub> =125°C	I <sub>R</sub> at V <sub>R</sub>	TK <sub>VZ</sub>
		mA	V	Ω	Ω	mA	μA	μA	V	%/K
<b>BZX 97/C 2 V 4</b>	2.4	5	2.28 ... 2.56	<85	<600	1	<10000	<50	1	135
<b>BZX 97/C 2 V 7</b>	2.7	5	2.5 ... 2.9	<85	<600	1	<10000	<50	1	135
<b>BZX 97/C 3 V 0</b>	3.0	5	2.8 ... 3.2	<85	<600	1	<4000	<40	1	125
<b>BZX 97/C 3 V 3</b>	3.3	5	3.1 ... 3.5	<85	<600	1	<2000	<40	1	115
<b>BZX 97/C 3 V 6</b>	3.6	5	3.4 ... 3.8	<85	<600	1	<2000	<40	1	105
<b>BZX 97/C 3 V 9</b>	3.9	5	3.7 ... 4.1	<85	<600	1	<2000	<40	1	95
<b>BZX 97/C 4 V 3</b>	4.3	5	4.0 ... 4.6	<75	<600	1	<1000	<20	1	90
<b>BZX 97/C 4 V 7</b>	4.7	5	4.4 ... 5.0	<60	<600	1	<500	<10	1	85
<b>BZX 97/C 5 V 1</b>	5.1	5	4.8 ... 5.4	<35	<550	1	<100	<2	1	80
<b>BZX 97/C 5 V 6</b>	5.6	5	5.2 ... 6.0	<25	<450	1	<100	<2	1	70
<b>BZX 97/C 6 V 2</b>	6.2	5	5.8 ... 6.6	<10	<200	1	<100	<2	2	64
<b>BZX 97/C 6 V 8</b>	6.8	5	6.4 ... 7.2	<8	<150	1	<100	<2	3	58
<b>BZX 97/C 7 V 5</b>	7.5	5	7.0 ... 7.9	<7	<50	1	<100	<2	5	53
<b>BZX 97/C 8 V 2</b>	8.2	5	7.7 ... 8.7	<7	<50	1	<100	<2	6	47
<b>BZX 97/C 9 V 1</b>	9.1	5	8.5 ... 9.6	<10	<50	1	<100	<2	7	43
<b>BZX 97/C 10</b>	10	5	9.4 ... 10.6	<15	<70	1	<100	<2	7.5	40
<b>BZX 97/C 11</b>	11	5	10.4 ... 11.6	<20	<70	1	<100	<2	8.5	36
<b>BZX 97/C 12</b>	12	5	11.4 ... 12.7	<20	<90	1	<100	<2	9	32
<b>BZX 97/C 13</b>	13	5	12.4 ... 14.1	<26	<110	1	<100	<2	10	29
<b>BZX 97/C 15</b>	15	5	13.8 ... 15.6	<30	<110	1	<100	<2	11	27
<b>BZX 97/C 16</b>	16	5	15.3 ... 17.1	<40	<170	1	<100	<2	12	24
<b>BZX 97/C 18</b>	18	5	16.8 ... 19.1	<50	<170	1	<100	<2	14	21
<b>BZX 97/C 20</b>	20	5	18.8 ... 21.2	<55	<220	1	<100	<2	15	20
<b>BZX 97/C 22</b>	22	5	20.8 ... 23.3	<55	<220	1	<100	<2	17	18
<b>BZX 97/C 24</b>	24	5	22.8 ... 25.6	<80	<220	1	<100	<2	18	16
<b>BZX 97/C 27</b>	27	5	25.1 ... 28.9	<80	<220	1	<100	<2	20	14
<b>BZX 97/C 30</b>	30	5	28 ... 32	<80	<220	1	<100	<2	22	13
<b>BZX 97/C 33</b>	33	5	31 ... 35	<80	<220	1	<100	<2	24	12
<b>BZX 97/C 36</b>	36	5	34 ... 38	<90	<250	1	<100	<2	26	11
<b>BZX 97/C 39</b>	39	2.5	37 ... 41	<100	<600 <sup>2)</sup>	0.5	<100	<2	28	10
<b>BZX 97/C 43</b>	43	2.5	40 ... 46	<100	<700 <sup>2)</sup>	0.5	<100	<2	32	9.2
<b>BZX 97/C 47</b>	47	2.5	44 ... 50	<120	<1000 <sup>2)</sup>	0.5	<100	<2	34	8.5
<b>BZX 97/C 51</b>	51	2.5	48 ... 54	<135	<1000 <sup>2)</sup>	0.5	<100	<2	36	7.8

<sup>1)</sup> Tested with pulses t<sub>p</sub> = 20 ms.

<sup>2)</sup> Measured at I<sub>Z</sub> = 0.5 mA.

<sup>3)</sup> Valid provided that leads are kept at ambient temperature at a distance of 8 mm from case.



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