



BZX97 ...

SILICON PLANAR ZENER DIODES

Features

Silicon Planar Zener Diodes

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

DO-35



DIMENSIONS				
DIM	inches		mm	
	Min.	Max.	Min.	Max.
A	-	0.154	-	3.9
B	-	0.075	-	1.9
C	-	0.020	-	0.52
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 ¹⁾	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 are kept at ambient temperature at a distance of 8 mm from case.

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

	Symbols	Min.	Typ.	Max.	Units
Thermal resistance junction to ambient Air	R_{thA}	-	-	0.3 ¹⁾	K/mW
Forward voltage at $I_F=100\text{mA}$	V_F	-	-	1.0	V

Note:

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

Type	Zener voltage range ¹⁾			Dynamic resistance			Reverse leakage current			Temp. coefficient of Zener voltage
	V _{znom}	I _{zT} for V _{zT} ³⁾		r _{zT} and r _{zK} at I _{zK}			I _R and I _R ³⁾ at V _R			TK _{VZ}
	V	mA	V	Ω	Ω	mA	nA	uA	V	%/K
BZX97/C 2V4	2.4	5	2.28 ... 2.56	<85	<600	1	<10000	<50	1	135
BZX97/C 2V7	2.7	5	2.5 ... 2.9	<85	<600	1	<10000	<50	1	135
BZX97/C 3V0	3.0	5	2.8 ... 3.2	<85	<600	1	<4000	<40	1	125
BZX97/C 3V3	3.3	5	3.1 ... 3.5	<85	<600	1	<2000	<40	1	115
BZX97/C 3V6	3.6	5	3.4 ... 3.8	<85	<600	1	<2000	<40	1	105
BZX97/C 3V9	3.9	5	3.7 ... 4.1	<85	<600	1	<2000	<40	1	95
BZX97/C 4V3	4.3	5	4.0 ... 4.6	<75	<600	1	<1000	<20	1	90
BZX97/C 4V7	4.7	5	4.4 ... 5.0	<60	<600	1	<500	<10	1	85
BZX97/C 5V1	5.1	5	4.8 ... 5.4	<35	<550	1	<100	<2	1	80
BZX97/C 5V6	5.6	5	5.2 ... 6.0	<25	<450	1	<100	<2	1	70
BZX97/C 6V2	6.2	5	5.8 ... 6.6	<10	<200	1	<100	<2	2	64
BZX97/C 6V8	6.8	5	6.4 ... 7.2	<8	<150	1	<100	<2	3	58
BZX97/C 7V5	7.5	5	7.0 ... 7.9	<7	<50	1	<100	<2	5	53
BZX97/C 8V2	8.2	5	7.7 ... 8.7	<7	<50	1	<100	<2	6	47
BZX97/C 9V1	9.1	5	8.5 ... 9.6	<10	<50	1	<100	<2	7	43
BZX97/C 10	10	5	9.4 ... 10.6	<15	<70	1	<100	<2	7.5	40
BZX97/C 11	11	5	10.4 ... 11.6	<20	<70	1	<100	<2	8.5	36
BZX97/C 12	12	5	11.4 ... 12.7	<20	<90	1	<100	<2	9	32
BZX97/C 13	13	5	12.4 ... 14.1	<26	<110	1	<100	<2	10	29
BZX97/C 15	15	5	13.8 ... 15.6	<30	<110	1	<100	<2	11	27
BZX97/C 16	16	5	15.3 ... 17.1	<40	<170	1	<100	<2	12	24
BZX97/C 18	18	5	16.8 ... 19.1	<50	<170	1	<100	<2	14	21
BZX97/C 20	20	5	18.8 ... 21.2	<55	<220	1	<100	<2	15	20
BZX97/C 22	22	5	20.8 ... 23.3	<55	<220	1	<100	<2	17	18
BZX97/C 24	24	5	22.8 ... 25.6	<80	<220	1	<100	<2	18	16
BZX97/C 27	27	5	25.1 ... 28.9	<80	<220	1	<100	<2	20	14
BZX97/C 30	30	5	28 ... 32	<80	<220	1	<100	<2	22	13
BZX97/C 33	33	5	31 ... 35	<80	<220	1	<100	<2	24	12
BZX97/C 36	36	5	34 ... 38	<90	<250	1	<100	<2	26	11
BZX97/C 39	39	2.5	37 ... 41	<100	<600 ²⁾	0.5	<100	<2	28	10
BZX97/C 43	43	2.5	40 ... 46	<100	<700 ²⁾	0.5	<100	<2	32	9.2
BZX97/C 47	47	2.5	44 ... 50	<120	<1000 ²⁾	0.5	<100	<2	34	8.5
BZX97/C 51	51	2.5	48 ... 54	<135	<1000 ²⁾	0.5	<100	<2	36	7.8

Notes:

(1) Tested with pulses tp=20ms.

(2) Measured at I_z=0.5mA

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