

BZX84C 3V3 - BZX84C 33 Series Zeners

Tolerance: C = 5%

Absolute Maximum Ratings*

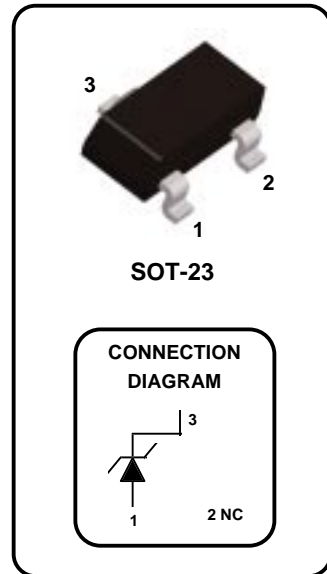
TA = 25°C unless otherwise noted

Parameter	Value	Units
Storage Temperature Range	-55 to +150	°C
Maximum Junction Operating Temperature	+ 150	°C
Total Device Dissipation	350	mW
Derate above 25°C	1.8	mW/°C
Repetitive Peak Forward Current (I _{FRM})	250	mA
Repetitive Peak Working Current (I _{ZRM})	250	mA

*These ratings are limiting values above which the serviceability of the diode may be impaired.

NOTES:

- 1) These ratings are based on a maximum junction temperature of 150 degrees C.
- 2) These are steady state limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.



Electrical Characteristics

TA = 25°C unless otherwise noted

Device	Mark	I _{ZT} = 5.0 mA			I _{ZT} = 1.0 mA			I _{ZT} = 20 mA		
		V _Z (V)		Z _Z (Ω)	V _Z (V)		Z _Z (Ω)	V _Z (V)		Z _Z (Ω)
		MIN	MAX	(Ω)	MIN	MAX	(Ω)	MIN	MAX	(Ω)
BZX84C 3V3	Z14	3.1	3.5	95	2.3	2.9	600	3.6	4.2	40
BZX84C 3V6	Z15	3.4	3.8	90	2.7	3.3	600	3.9	4.5	40
BZX84C 3V9	Z16	3.7	4.1	90	2.9	3.5	600	4.1	4.7	30
BZX84C 4V3	Z17	4.0	4.6	90	3.3	4.0	600	4.4	5.1	30
BZX84C 4V7	Z1	4.4	5.0	80	3.7	4.7	500	4.5	5.4	15
BZX84C 5V1	Z2	4.8	5.4	60	4.2	5.3	480	5.0	5.9	15
BZX84C 5V6	Z3	5.2	6.0	40	4.8	6.0	400	5.2	6.3	10
BZX84C 6V2	Z4	5.8	6.6	10	5.6	6.6	150	5.8	6.8	6
BZX84C 6V8	Z5	6.4	7.2	15	6.3	7.2	80	6.4	7.4	6
BZX84C 7V5	Z6	7.0	7.9	15	6.9	7.9	80	7.0	8.0	6
BZX84C 8V2	Z7	7.7	8.7	15	7.6	8.7	80	7.7	8.8	6
BZX84C 9V1	Z8	8.5	9.6	15	8.4	9.6	100	8.5	9.7	8
BZX84C 10	Z9	9.4	10.6	20	9.3	10.6	150	9.4	10.7	10
BZX84C 11	Y1	10.4	11.6	20	10.2	11.6	150	10.4	11.8	10
BZX84C 12	Y2	11.4	12.7	25	11.2	12.7	150	11.4	12.9	10
BZX84C 13	Y3	12.4	14.1	30	12.3	14.0	170	12.5	14.2	15
BZX84C 15	Y4	13.8	15.6	30	13.7	15.5	200	13.9	15.7	20
BZX84C 16	Y5	15.3	17.1	40	15.2	17	200	15.4	17.2	20
BZX84C 18	Y6	16.8	19.1	45	16.7	19	225	16.9	19.2	20
BZX84C 20	Y7	18.8	21.2	55	18.7	21.1	225	18.9	21.4	20
BZX84C 22	Y8	20.8	23.3	55	20.7	23.2	250	20.9	23.4	25
BZX84C 24	Y9	22.8	25.6	70	22.7	25.5	250	22.9	25.7	25

NOTE: National preferred devices in **BOLD**

BZX84C Series Zeners

(continued)

Electrical Characteristics (continued)

TA = 25°C unless otherwise noted

Device	Mark	I _{ZT} = 2.0 mA		I _{ZT} = 100 μA*		I _{ZT} = 10 mA				
		V _Z (V)		Z _Z (Ω)		V _Z (V)		Z _Z (Ω)		
		MIN	MAX	MIN	MAX	MIN	MAX			
BZX84C 27	Y10	25.1	28.9	80	25	28.9	300	25.2	29.3	45
BZX84C 30	Y11	28	32	80	27.8	32	300	28.1	32.4	50
BZX84C 33	Y12	31	35	80	30.8	35	325	31.1	35.4	55

V_F Forward Voltage = 0.9 V Maximum @ I_F = 10 mA for all BZX 84 series

*Capacitance @ V_R = 0.0 volts; Frequency = 1.0 megahertz.

Device	V _R (V)	I _R (μA)	CAP* (pF)	D _{VZ} / D _t @ 5.0 mA (mV/k)	
				MIN	MAX
BZX84C 3V3	1.0	5.0	450	- 3.5	0.0
BZX84C 3V6	1.0	5.0	450	- 3.5	0.0
BZX84C 3V9	1.0	5.0	450	- 3.5	0.0
BZX84C 4V3	1.0	5.0	450	- 3.5	0.0
BZX84C 4V7	2.0	3	260	- 3.5	+ 0.2
BZX84C 5V1	2.0	2	225	- 2.7	+ 1.2
BZX84C 5V6	2.0	1	200	- 2.0	+ 2.5
BZX84C 6V2	4.0	3	185	+ 0.4	+ 3.7
BZX84C 6V8	4.0	2	155	+ 1.2	+ 4.5
BZX84C 7V5	5.0	1	140	+ 2.5	+ 5.3
BZX84C 8V2	5.0	0.7	135	+ 3.2	+ 6.2
BZX84C 9V1	6.0	0.5	130	+ 3.8	+ 7.0
BZX84C 10	7.0	0.2	130	+ 4.5	+ 8.0
BZX84C 11	8.0	0.1	130	+ 5.4	+ 9.0
BZX84C 12	8.0	0.1	130	+ 6.0	+ 10
BZX84C 13	8.0	0.1	120	+ 7.0	+ 11
BZX84C 15	10.5	0.05	110	+ 9.2	+ 13
BZX84C 16	11.2	0.05	105	+ 10.4	+ 14
BZX84C 18	12.6	0.05	100	+ 12.4	+ 16
BZX84C 20	14	0.05	85	+ 14.4	+ 18
BZX84C 22	15.4	0.05	85	+ 16.4	+ 20
BZX84C 24	16.8	0.05	80	+ 18.4	+ 22

Device	V _R (V)	I _R (μA)	CAP* (pF)	D _{VZ} / D _t @ 2.0 mA (mV/k)	
				MIN	MAX
BZX84C 27	18.9	0.05	70	21.4	25.3
BZX84C 30	21	0.05	70	24.4	29.4
BZX84C 33	23.1	0.05	70	27.4	33.4

BZX84C 4V7 - BZX84C 33 Series

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