

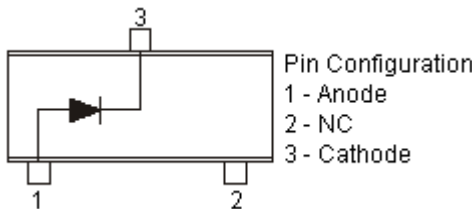
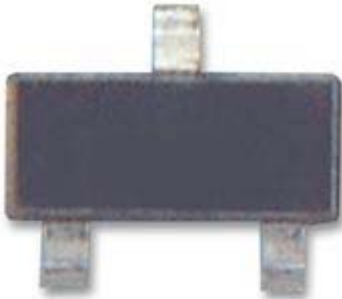
Diode, Zener



Silicon Planar Voltage Regulator Diode

Feature:

Low voltage general purpose voltage regulator diode.



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

Description	Symbol	Value	Unit
Working Voltage Tolerance		± 5	%
Repetitive Peak Forward Current	I_{FRM}	250	mA
Repetitive Peak Working Current	I_{ZRM}		
Power Dissipation upto $T_a = 25^{\circ}\text{C}$	$*P_D$	300	mW
Power Dissipation upto $T_c = 25^{\circ}\text{C}$	$**P_D$	250	
Junction Temperature	T_j	150	$^{\circ}\text{C}$
Storage Temperature	T_{stg}	- 65 to + 150	

Thermal Resistance

Junction to Ambient	$*R_{th(j-a)}$	420	K/W
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* Device mounted on a ceramic alumina.

** Device mounted on an FR5 printed circuit board.

Forward Voltage at $V_F < 0.9\text{V}$ at 10mA and $< 1.5\text{V}$ at 200mA.



Electrical Characteristics (Ta=25°C unless specified otherwise)

Working Voltage ***V _Z (± 5%) (V) at I _Z test = 5mA		Differential Resistance rdiff (Ω) at I _Z test = 5mA	Temperature Coefficient S _Z (mV/K) at I _Z test = 5mA		Differential Resistance rdiff (Ω) at I _Z test = 1mA	I _R at V _R μA		Marking	Part Numbers
min	max	max	min	max	Max	max	(V)		
9.40	10.60	20	4.5	8.0	150	0.2	7.0	Z9	BZX84C10
10.40	11.60	20	5.4	9.0	150	0.1	8	Y1	BZX84C11
11.40	12.70	25	6.0	10	150	0.1	8	Y2	BZX84C12
12.40	14.10	30	7.0	11	170	0.1	8	Y3	BZX84C13
13.80	15.60	30	9.2	13	200	0.05	10.5	Y4	BZX84C15
15.30	17.10	40	10.4	14	200	0.05	11.2	Y5	BZX84C16
16.80	19.10	45	12.4	16	225	0.05	12.6	Y6	BZX84C18
18.80	21.20	55	14.4	18	225	0.05	14.0	Y7	BZX84C20
20.80	23.30	55	16.4	20	250	0.05	15.4	Y8	BZX84C22
22.80	25.60	70	18.4	22	250	0.05	16.8	Y9	BZX84C24
at I _Z test = 2mA		at I _Z test = 2mA	at I _Z test = 2mA		at I _Z test = 0.5mA				
25.10	28.90	80	21.4	25.3	300	0.05	18.9	Y10	BZX84C27
28.00	32.00	80	24.4	29.4	300	0.05	21.0	Y11	BZX84C30
31.00	35.00	80	27.4	33.4	325	0.05	23.1	Y12	BZX84C33
34.00	38.00	90	30.4	37.4	350	0.05	25.2	Y13	BZX84C36
37.00	41.00	130	33.4	41.2	350	0.05	27.3	Y14	BZX84C39
40.00	46.00	150	37.6	46.6	375	0.05	30.1	Y15	BZX84C43
44.00	50.00	170	42.0	51.8	375	0.05	32.9	Y16	BZX84C47
4.40	5.00	80	- 3.5	0.2	500	3.0	2.0	Z1	BZX84C4V7
48.00	54.00	180	46.6	57.2	400	0.05	35.7	Y17	BZX84C51
4.80	5.40	60	- 2.7	1.2	480	2.0	2.0	Z2	BZX84C5V1
5.20	6.00	40	- 2.0	2.5	400	1.0	2.0	Z3	BZX84C5V6
5.80	6.60	10	0.4	3.7	150	3.0	4.0	Z4	BZX84C6V2
7.00	7.90	15	2.5	5.3	80	1.0	5.0	Z6	BZX84C7V5
7.70	8.70	15	3.2	6.2	80	0.7	5.0	Z7	BZX84C8V2
8.50	9.60	15	3.8	7.0	100	0.5	6.0	Z8	BZX84C9V1

*** Pulse Test 20ms ≤tp ≤50ms

Notes:

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