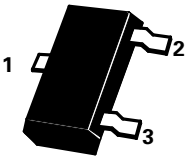
SOT23 SILICON PLANAR VOLTAGE REGULATOR DIODES

BZX84 SERIES C2V7 to C47

ISSUE 3 - NOVEMBER 1995 ✪

PIN CONFIGURATION



SOT23

ABSOLUTE MAXIMUM RATINGS (as per Electron Coding Sytem).

PARAMETER	SYMBOL	VALUE	UNIT
Voltage Range	V_Z	2.7 to 47	V
Nominal Tolerance	C	±5	%
Maximum Forward Current	I_F	250	mA
Power Dissipation at T_{amb}=25°C	P_{tot}	330	mW
Operating and Storage Temperature Range	T_j:T_{stg}	-55 to +150	°C

ELECTRICAL CHARACTERISTICS (at T_{amb} = 25°C).

Type	Zener Voltage V_Z at I_Z=5mA V			Differential Resistance r_Z at I_Z=5mA Ω	Temperature Coefficient S_Z at I_Z=5mA mV/°C		Reverse Current I_R at V_R µA V	
BZX84:	Nom.	Min.	Max.	Max.	Min	Max	Max	Max
C2V7	2.7	2.5	2.9	100	-3.5	0	20	1
C3V0	3.0	2.8	3.2	100	-3.5	0	10	1
C3V3	3.3	3.1	3.5	100	-3.5	0	5	1
C3V6	3.6	3.4	3.8	100	-3.5	0	5	1
C3V9	3.9	3.7	4.1	100	-3.5	0	3	1
C4V3	4.3	4.0	4.6	90	-3.5	0	3	1
C4V7	4.7	4.4	5.0	80	-3.5	0.2	3	2
C5V1	5.1	4.8	5.4	60	-2.7	1.2	2	2
C5V6	5.6	5.2	6.0	40	-2.0	2.5	1	2
C6V2	6.2	5.8	6.6	10	0.4	3.7	3	4
C6V8	6.8	6.4	7.2	15	1.2	4.5	2	4
C7V5	7.5	7.0	7.9	15	2.5	5.3	1	5
C8V2	8.2	7.7	8.7	15	3.2	6.2	0.7	5

BZX84 SERIES C2V7 to C47

ELECTRICAL CHARACTERISTICS (at T_{amb} = 25°C).

Type	Zener Voltage (V) V_Z at I_Z=1mA	Differential Resistance (Ω) r_Z at I_Z=1mA	Partmarking
BZX84:	Min.	Max.	
C2V7	1.9	600	W4
C3V0	2.1	600	W5
C3V3	2.4	600	W6
C3V6	2.7	600	W7
C3V9	3.0	600	W8
C4V3	3.3	600	W9
C4V7	3.7	500	Z1
C5V1	4.2	480	Z2
C5V6	4.8	400	Z3
C6V2	5.6	150	Z4
C6V8	6.3	80	Z5
C7V5	6.9	80	Z6
C8V2	7.6	80	Z7
C9V1	8.4	100	Z8
C10	9.3	150	Z9
C11	10.2	150	Y1
C12	11.2	150	Y2
C13	12.3	170	Y3
C13V6	12.3	170	Y36
C15	13.7	200	Y4
C16	15.2	200	Y5
C18	16.7	225	Y6
C20	18.7	225	Y7
C22	20.7	250	Y8
C24	22.7	250	Y9
	V_z at I_Z=0.5mA	r_z at I_Z=0.5mA	
C27	25.0	300	X1
C30	27.8	300	X2
C33	30.8	325	X3
C36	33.8	350	X4
C39	36.7	350	X5
C43	39.7	375	X6
C47	43.7	375	X7

BZX84 SERIES C2V7 to C47

ELECTRICAL CHARACTERISTICS (at T_{amb} = 25°C).

Type	Zener Voltage V_Z at I_Z=2mA VOLTS			Differential Resistance r_Z at I_Z=2mA Ω	Temperature Coefficient S_Z at I_Z=2mA mV/°C		Reverse Current I_R at V_R µA V	
BZX84:	Nom.	Min.	Max.	Max.	Min	Max	Max	Max
C10	10	9.4	10.6	20	4.5	8.0	0.2	7
C11	11	10.4	11.6	20	5.4	9.0	0.1	8
C12	12	11.4	12.7	25	6.0	10.0	0.1	8
C13	13	12.4	14.1	30	7.0	11.0	0.1	9
C13V6	13.6	12.9	14.3	30	7.0	11.0	0.1	9
C15	15	13.8	15.6	30	9.2	13.0	0.05	10
C16	16	15.3	17.1	40	10.4	14.0	0.05	11
C18	18	16.8	19.1	45	12.4	16.0	0.05	13
C20	20	18.8	21.2	55	14.4	18.0	0.05	14
C22	22	20.8	23.3	55	16.4	20.0	0.05	15
C24	24	22.8	25.6	70	18.4	22.0	0.05	17
C27	27	25.1	28.9	80	21.4	25.3	0.05	19
C30	30	28.0	32.0	80	24.4	29.4	0.05	21
C33	33	31.0	35.0	80	27.4	33.4	0.05	23
C36	36	34.0	38.0	90	30.4	37.4	0.05	25
C39	39	37.0	41.0	130	33.4	41.2	0.05	27
C43	43	40.0	46.0	150	37.6	46.6	0.05	30
C47	47	44.0	50.0	170	42.0	51.8	0.05	33