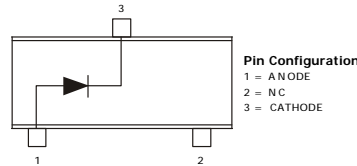
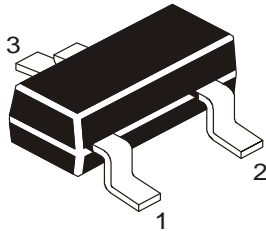


**SILICON PLANAR VOLTAGE REGULATOR DIODE**

**BZX84C2V4 to 75V**



**SOT-23  
Formed SMD Package**

Low voltage general purpose voltage regulator diode

**ABSOLUTE MAXIMUM RATINGS (T<sub>a</sub>=25°C)**

DESCRIPTION	SYMBOL	VALUE	UNIT
Working Voltage Tolerance		± 5	%
Repetitive Peak Forward Current	I <sub>FRM</sub>	250	mA
Repetitive Peak Working Current	I <sub>ZRM</sub>	250	mA
Power Dissipation upto T <sub>a</sub> =25°C	*P <sub>D</sub>	300	mW
Power Dissipation upto T <sub>c</sub> =25°C	**P <sub>D</sub>	250	mW
Junction Temperature	T <sub>j</sub>	150	°C
Storage Temperature	T <sub>stg</sub>	- 65 to +150	°C

**THERMAL RESISTANCE**

Junction to Ambient	*R <sub>th(j-a)</sub>	420	K/W
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\* Device mounted on a ceramic alumina

\*\* Device mounted on an FR5 printed circuit board

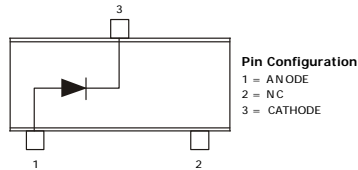
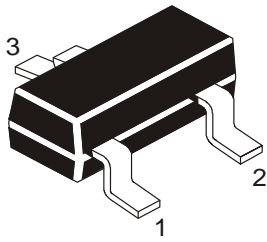
Forward Voltage at V<sub>F</sub> <0.9V at 10mA and <1.5V at 200mA

**ELECTRICAL CHARACTERISTICS (T<sub>a</sub>=25°C unless specified otherwise)**

Device	Working Voltage ***V <sub>Z</sub> (± 5%) (V) at I <sub>Z</sub> test=5mA		Differential Resistance rdiff (W) at I <sub>Z</sub> test=5mA	Temperature Coefficient S <sub>Z</sub> (mV/K) at I <sub>Z</sub> test=5mA		Differential Resistance rdiff (W) at I <sub>Z</sub> test=1mA	I <sub>R</sub> at V <sub>R</sub> mA		Marking
	min	max	max	min	max	max	Max	(V)	
BZX84C2V4	2.20	2.60	100	-3.5		600	50	1.0	Z11
BZX84C2V7	2.50	2.90	100	-3.5		600	20	1.0	Z12
BZX84C3V0	2.80	3.20	95	-3.5		600	10	1.0	Z13
BZX84C3V3	3.10	3.50	95	-3.5		600	5.0	1.0	Z14
BZX84C3V6	3.40	3.80	90	-3.5		600	5.0	1.0	Z15
BZX84C3V9	3.70	4.10	90	-3.5		600	3.0	1.0	Z16
BZX84C4V3	4.00	4.60	90	-3.5		600	3.0	1.0	Z17
BZX84C4V7	4.40	5.00	80	-3.5	0.2	500	3.0	2.0	Z1
BZX84C5V1	4.80	5.40	60	-2.7	1.2	480	2.0	2.0	Z2
BZX84C5V6	5.20	6.00	40	-2.0	2.5	400	1.0	2.0	Z3
BZX84C6V2	5.80	6.60	10	0.4	3.7	150	3.0	4.0	Z4
BZX84C6V8	6.40	7.20	15	1.2	4.5	80	2.0	4.0	Z5
BZX84C7V5	7.00	7.90	15	2.5	5.3	80	1.0	5.0	Z6
BZX84C8V2	7.70	8.70	15	3.2	6.2	80	0.7	5.0	Z7
BZX84C9V1	8.50	9.60	15	3.8	7.0	100	0.5	6.0	Z8
BZX84C10	9.40	10.60	20	4.5	8.0	150	0.2	7.0	Z9

BZX84C2V4\_75V Rev\_060506E

\*\*\* Pulse Test 20ms ≤ tp ≤ 50ms



SOT-23  
 Formed SMD Package

Forward Voltage at  $V_F < 0.9V$  at 10mA and  $< 1.5V$  at 200mA

ELECTRICAL CHARACTERISTICS ( $T_a = 25^\circ C$  unless specified otherwise)

Device	Working Voltage *** $V_Z (\pm 5\%)$ (V) at $I_Z \text{ test} = 5\text{mA}$		Differential Resistance rdiff (W) at $I_Z \text{ test} = 5\text{mA}$	Temperature Coefficient $S_Z$ (mV/K) at $I_Z \text{ test} = 5\text{mA}$		Differential Resistance rdiff (W) at $I_Z \text{ test} = 1\text{mA}$	$I_R$ at $V_R$ mA		Marking
	min	max	max	min	max	max	Max	(V)	
BZX84C11	10.40	11.60	20	5.4	9.0	150	0.1	8	Y1
BZX84C12	11.40	12.70	25	6.0	10	150	0.1	8	Y2
BZX84C13	12.40	14.10	30	7.0	11	170	0.1	8	Y3
BZX84C15	13.80	15.60	30	9.2	13	200	0.05	10.5	Y4
BZX84C16	15.30	17.10	40	10.4	14	200	0.05	11.2	Y5
BZX84C18	16.80	19.10	45	12.4	16	225	0.05	12.6	Y6
BZX84C20	18.80	21.20	55	14.4	18	225	0.05	14.0	Y7
BZX84C22	20.80	23.30	55	16.4	20	250	0.05	15.4	Y8
BZX84C24	22.80	25.60	70	18.4	22	250	0.05	16.8	Y9
	at $I_Z \text{ test} = 2\text{mA}$		at $I_Z \text{ Test} = 2\text{mA}$	at $I_Z \text{ Test} = 2\text{mA}$		at $I_Z \text{ Test} = 0.5\text{mA}$			
BZX84C27	25.10	28.90	80	21.4	25.3	300	0.05	18.9	Y10
BZX84C30	28.00	32.00	80	24.4	29.4	300	0.05	21.0	Y11
BZX84C33	31.00	35.00	80	27.4	33.4	325	0.05	23.1	Y12
BZX84C36	34.00	38.00	90	30.4	37.4	350	0.05	25.2	Y13
BZX84C39	37.00	41.00	130	33.4	41.2	350	0.05	27.3	Y14
BZX84C43	40.00	46.00	150	37.6	46.6	375	0.05	30.1	Y15
BZX84C47	44.00	50.00	170	42.0	51.8	375	0.05	32.9	Y16
BZX84C51	48.00	54.00	180	46.6	57.2	400	0.05	35.7	Y17
BZX84C56	52.00	60.00	200	52.2	63.8	425	0.05	39.2	Y18
BZX84C62	58.00	66.00	215	58.8	71.6	450	0.05	43.4	Y19
BZX84C68	64.00	72.00	240	65.6	79.8	475	0.05	47.6	Y20
BZX84C75	70.00	79.00	255	73.4	88.6	500	0.05	52.5	Y21

BZX84C2V4\_75V Rev\_060506E

\*\*\* Pulse Test  $20\text{ms} \leq t_p \leq 50\text{ms}$



### Component Disposal Instructions

1. CDIL Semiconductor Devices are RoHS compliant, customers are requested to please dispose as per prevailing Environmental Legislation of their Country.
2. In Europe, please dispose as per EU Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE).

### Disclaimer

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