

Features

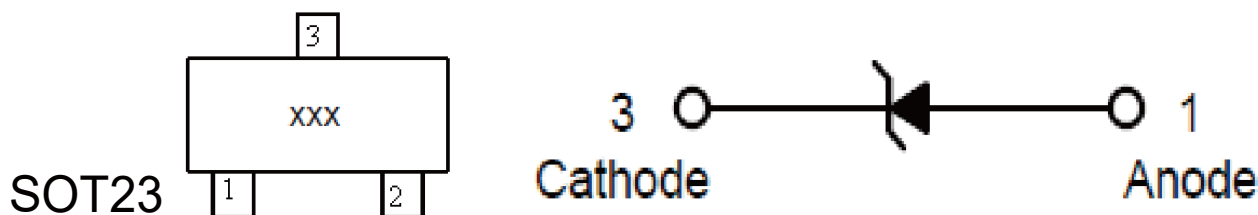
- Total power dissipation: Max. 225mW
- Wide zener reverse voltage range 2V4 to 39V
- Small plastic package suitable for surface mounted design
- 5% high-precision regulated voltage stability
- High reliability chip and packaging process



Applications

Low-power voltage regulator is mainly used for circuit voltage adjustment of mobile phones, hand-held devices and high-density computer motherboards.

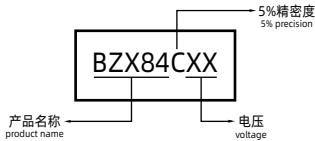
Schematic diagram of package die



Schematic diagram of package die

Parameter	Symbol	Value	Value
Power Dissipation	P_D	225	mW
Forward Voltage at $I_F = 10\text{ mA}$	V_F	0.85	V
Typical thermal resistance junction to ambient ⁽¹⁾	$R_{\theta JA}$	556	°C/W
Operating and Storage Temperature Range	T_J, T_{stg}	-55 ~ +150	°C

Ordering information

Product ID	Pack	Naming rule	voltage	Qty(PCS)
BZX84CXX	SOT23	 产品名称 product name 电压 voltage 5%精度 5% precision	2V4-39V	3000

Electrical Characteristics (T_A=25℃, unless otherwise noted)

Type	Marking	VZ(V) @ IZ=5mA			ZZ @ IZ = 1 mA	ZZ @ IZ = 5 mA	ZZ @ IZ = 20mA	IR@VR	VR	Typical Temperature Coefficient(mV/℃)@ IZ=5mA	
		MIN	NOM	MAX	(Ω)	(Ω)	(Ω)	(uA)	V	Min	Max
BZX84C2V4	Z11	2.28	2.4	2.52	570	95	47.5	40	1	-3.5	0
BZX84C2V7	Z12	2.57	2.7	2.84	570	95	47.5	16	1	-3.5	0
BZX84C3V0	Z13	2.85	3	3.15	570	90	47.5	8	1	-3.5	0
BZX84C3V3	Z14	3.14	3.3	3.47	570	90	38	4	1	-3.5	0
BZX84C3V6	Z15	3.42	3.6	3.78	570	85	38	4	1	-3.5	0
BZX84C3V9	Z16	3.72	3.9	4.08	570	85	28.5	2.4	1	-3.5	0
BZX84C4V3	Z17	4.09	4.3	4.52	570	85	28.5	2.4	1	-3.5	0
BZX84C4V7	Z1	4.47	4.7	4.94	475	75	14	2.4	2	-3.5	0.2
BZX84C5V1	Z2	4.85	5.1	5.36	455	57	14	1.6	2	-2.7	1.2
BZX84C5V6	Z3	5.32	5.6	5.88	380	38	9.5	0.8	2	-2	2.5
BZX84C6V2	Z4	5.89	6.2	6.51	200	9.5	5.7	2.4	4	0.4	3.7
BZX84C6V8	Z5	6.46	6.8	7.14	76	14.2	5.7	1.6	4	1.2	4.5
BZX84C7V5	Z6	7.13	7.5	7.88	76	14.2	5.7	0.8	5	2.5	5.3
BZX84C8V2	Z7	7.79	8.2	8.61	76	14.2	5.7	0.56	5	3.2	6.2
BZX84C9V1	Z8	8.65	9.1	9.56	95	14.2	7.6	0.16	7	3.8	7.0
BZX84C10	Z9	9.50	10	10.50	142.5	19	9.5	0.08	8	4.5	8.0
BZX84C11	Y1	10.45	11	11.55	142.5	19	9.5	0.08	8	5.4	9.0
BZX84C12	Y2	11.4	12	12.60	150	23.7	9.5	0.08	8	6.0	10.0
BZX84C13	Y3	12.35	13	13.65	170	28.5	14.2	0.08	8	7.0	11.0
BZX84C15	Y4	14.25	15	15.75	190	28.5	19	0.04	11	9.2	13.0
BZX84C16	Y5	15.2	16	16.80	190	38	19	0.04	11	10.4	14.0
BZX84C18	Y6	17.10	18	18.90	213	42.7	19	0.04	13	12.4	16.0
BZX84C20	Y7	19.0	20	21.0	213	52.2	19	0.04	14	14.4	18.0
BZX84C22	Y8	20.9	22	23.10	237	52.2	23.7	0.04	15	16.4	20.0
BZX84C24	Y9	22.8	24	25.2	---	66.5	23.7	0.04	17	18.4	22.0
BZX84C27	Y10	25.65	27	28.35	295	75	43	0.04	19	21.4	25.3
BZX84C30	Y11	28.50	30	31.50	295	75	48	0.04	21	24.4	29.4
BZX84C33	Y12	31.35	33	34.65	320	75	53	0.04	23	27.4	33.4
BZX84C36	Y13	34.20	36	37.80	345	85	58	0.04	25	30.4	37.4
BZX84C39	Y14	37.05	39	40.95	345	125	68	0.04	27	33.4	41.2

Typical Characteristics

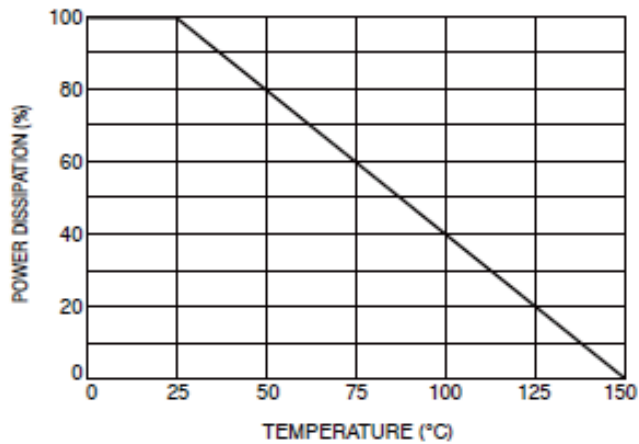


Fig.1 Maximum continuous power loss

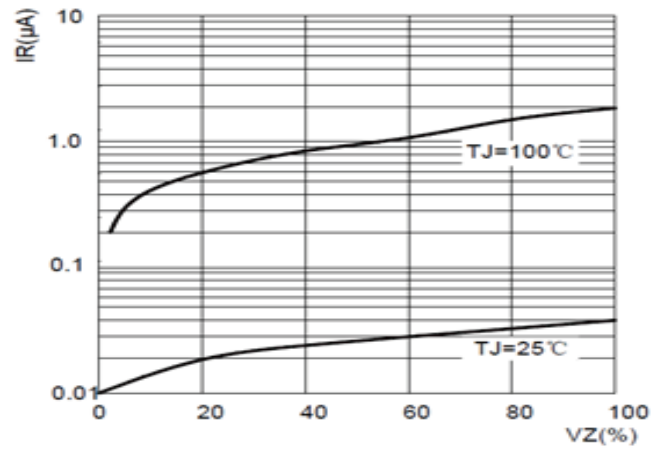


Fig.2 Typical reverse characteristic

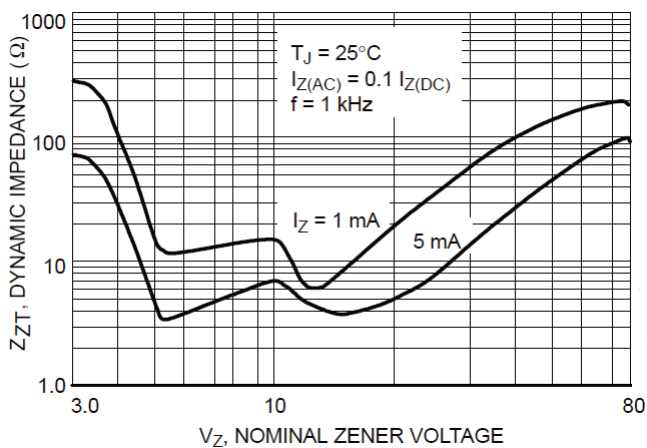


Fig.3 Reverse voltage and impedance characteristic curve

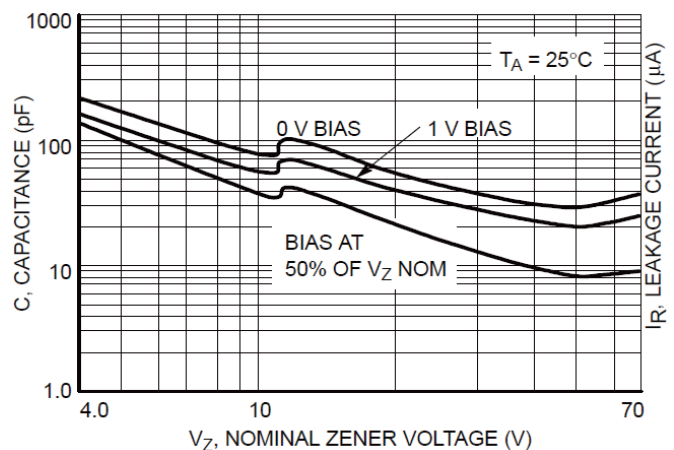
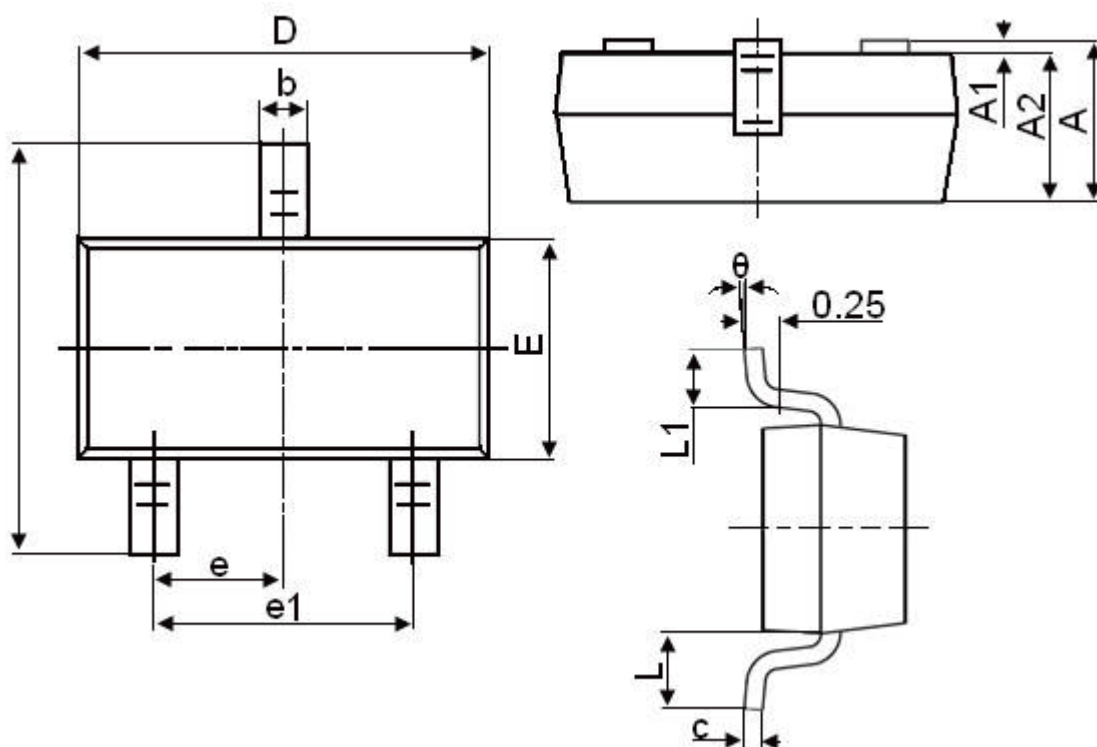


Fig.4 Typical capacitance characteristic curve



SOT23 Package Outline Dimensions



Symbol	Dimensions in Millimeters	
	mm	
	Min	Max
A	0.900	1.150
A1	0.000	0.100
A2	0.900	1.050
b	0.300	0.500
c	0.080	0.150
D	2.800	3.000
E	1.200	1.400
E1	2.250	2.550
e	0.950TYP	
e1	1.800	2.000
L	0.550REF	
L1	0.300	0.500
θ	0°	8°