

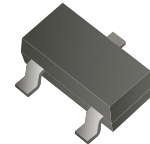
## BZX84C2V4CC-HF Thru. BZX84C51CC-HF

Voltage: 2.4 to 51 Volts

Power: 350 mWatts

RoHS Device

Halogen Free

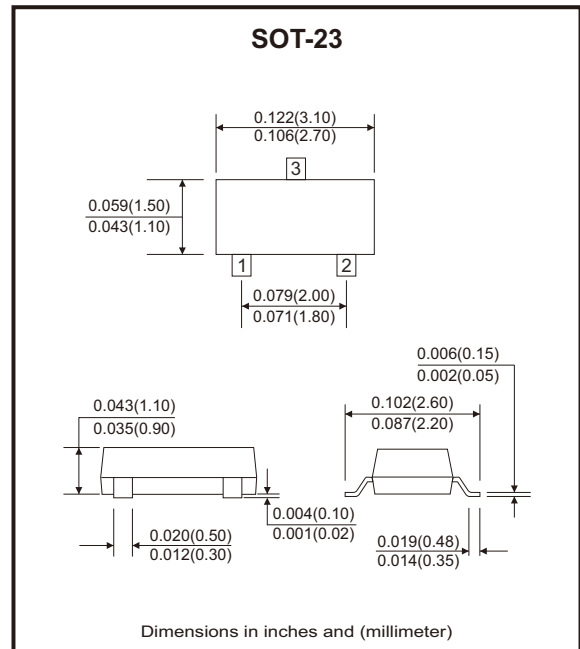


### Features

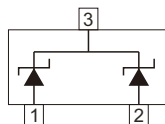
- Zener breakdown voltage range  
- 2.4V to 51V.
- Package designed for optimal automated board assembly.
- Small package size for high density applications.

### Mechanical data

- Case: SOT-23, Molded plastic.



### Circuit Diagram



### Maximum Rating (at Ta=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Power dissipation	P <sub>D</sub>	350	mW
Thermal resistance, junction to ambient (Note 1)	R <sub>θJA</sub>	417	°C/W
Operating and storage temperature range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +150	°C

Note: 1. Alumina = 0.4 \* 0.3 \* 0.024 in, 99.5% alumina.

## Electrical Characteristics (at Ta=25°C unless otherwise noted, Vf < 0.9V at If = 10 )

Part Number	Zener voltage range (Note 1)	Dynamic resistance	Reverse leakage current	IzT	ZzT Max. (Ω)	I <sub>R</sub> Max (μA) at V <sub>R</sub> (V)		Marking Code
	Min(V)	Nom(V)	Max(V)	(mA)	(Ω)	I <sub>R</sub> (μA)	V <sub>R</sub> (V)	
BZX84C2V4CC-HF	2.2	2.4	2.6	5.0	100	50	1.0	JH
BZX84C2V7CC-HF	2.5	2.7	2.9	5.0	100	20	1.0	JJ
BZX84C3V0CC-HF	2.8	3.0	3.2	5.0	95	10	1.0	JK
BZX84C3V3CC-HF	3.1	3.3	3.5	5.0	95	5.0	1.0	JM
BZX84C3V6CC-HF	3.4	3.6	3.8	5.0	90	5.0	1.0	JN
BZX84C3V9CC-HF	3.7	3.9	4.1	5.0	90	3.0	1.0	JP
BZX84C4V3CC-HF	4.0	4.3	4.6	5.0	90	3.0	1.0	JR
BZX84C4V7CC-HF	4.4	4.7	5.0	5.0	80	3.0	2.0	JX
BZX84C5V1CC-HF	4.8	5.1	5.4	5.0	60	2.0	2.0	JY
BZX84C5V6CC-HF	5.2	5.6	6.0	5.0	40	1.0	2.0	JZ
BZX84C6V2CC-HF	5.8	6.2	6.6	5.0	10	3.0	4.0	KA
BZX84C6V8CC-HF	6.4	6.8	7.2	5.0	15	2.0	4.0	KB
BZX84C7V5CC-HF	7.0	7.5	7.9	5.0	15	1.0	5.0	KC
BZX84C8V2CC-HF	7.7	8.2	8.7	5.0	15	0.7	5.0	KD
BZX84C9V1CC-HF	8.5	9.1	9.6	5.0	15	0.5	6.0	KE
BZX84C10CC-HF	9.4	10	10.6	5.0	20	0.2	7.0	KF
BZX84C11CC-HF	10.4	11	11.6	5.0	20	0.1	8.0	KH
BZX84C12CC-HF	11.4	12	12.7	5.0	25	0.1	8.0	KJ
BZX84C13CC-HF	12.4	13	14.1	5.0	30	0.1	8.0	KK
BZX84C15CC-HF	14.3	15	15.8	5.0	30	0.05	10.5	KM
BZX84C16CC-HF	15.3	16	17.1	5.0	40	0.05	11.2	KN
BZX84C18CC-HF	16.8	18	19.1	5.0	45	0.05	12.6	KP
BZX84C20CC-HF	18.8	20	21.2	5.0	55	0.05	14.0	KR
BZX84C22CC-HF	20.8	22	23.3	5.0	55	0.05	15.4	KX
BZX84C24CC-HF	22.8	24	25.6	5.0	70	0.05	16.8	KY
BZX84C27CC-HF	25.1	27	28.9	2.0	80	0.05	18.9	KZ
BZX84C30CC-HF	28.0	30	32.0	2.0	80	0.05	21.0	MA
BZX84C33CC-HF	31.0	33	35.0	2.0	80	0.05	23.1	MB
BZX84C36CC-HF	34.0	36	38.0	2.0	90	0.05	25.2	MC
BZX84C39CC-HF	37.0	39	41.0	2.0	130	0.05	27.3	MD
BZX84C43CC-HF	40.0	43	46.0	2.0	150	0.05	30.1	ME
BZX84C47CC-HF	44.0	47	50.0	2.0	170	0.05	32.9	MF
BZX84C51CC-HF	48.0	51	54.0	2.0	180	0.05	35.7	MH

Note: 1. Tested with pulses tp = 20ms.

## Rating and Characteristic Curves (BZX84C2V4CC-HF Thru. BZX84C51CC-HF)

Fig.1 - Temperature Coefficient

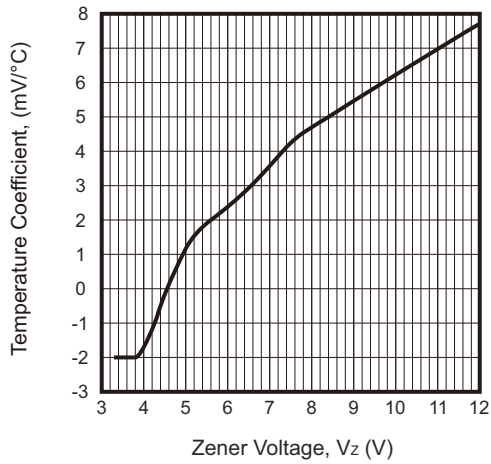


Fig.2 - Temperature Coefficient

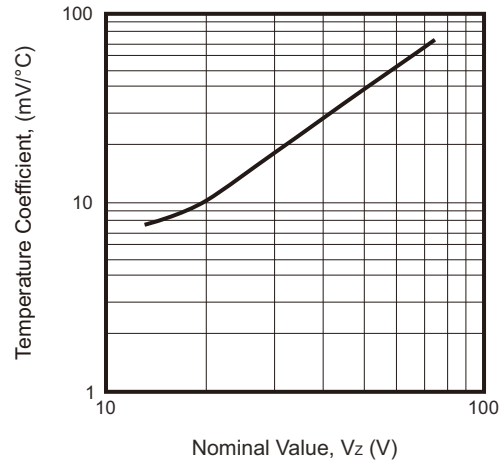


Fig.3 - Power Derating Curve

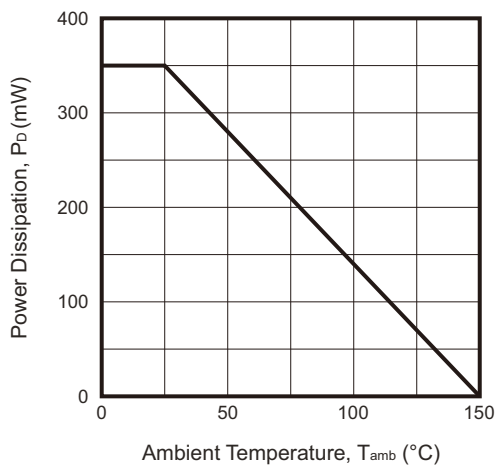
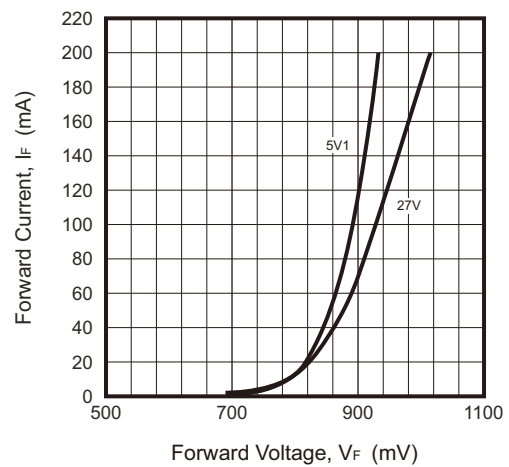
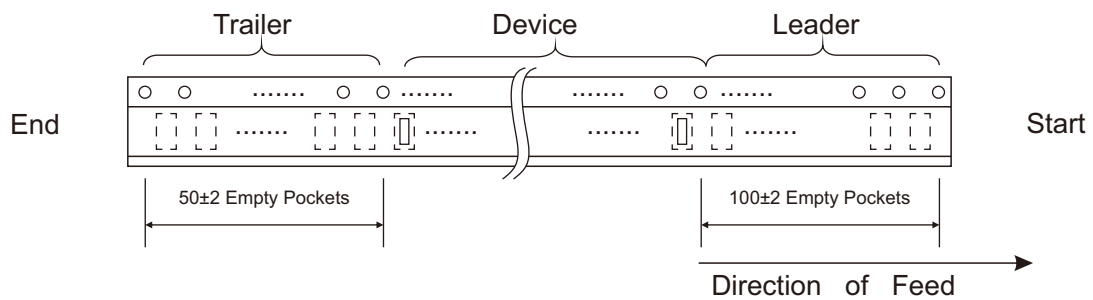
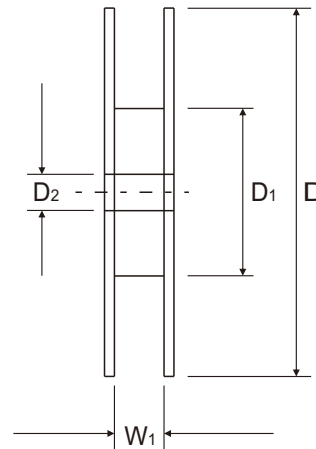
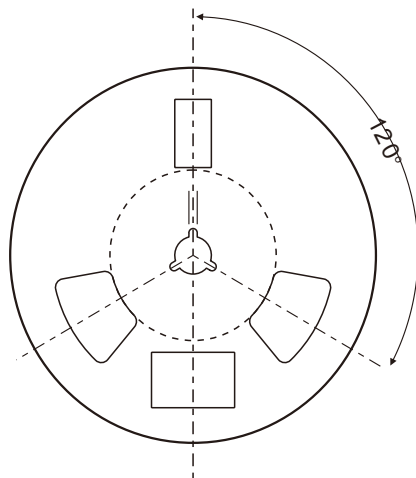
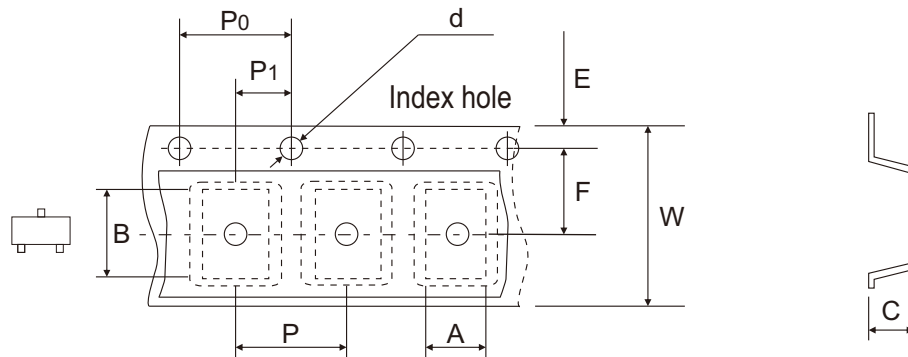


Fig.4 - Typical Forward Voltage



## Reel Taping Specification

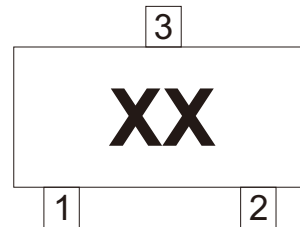


SOT-23	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	3.15 ± 0.10	2.77 ± 0.10	1.22 ± 0.10	1.50 ± 0.10	178.00 ± 1.00	54.00 ± 0.50	13.00 ± 0.50
	(inch)	0.124 ± 0.004	0.109 ± 0.004	0.048 ± 0.004	0.059 ± 0.004	7.008 ± 0.039	2.126 ± 0.020	0.512 ± 0.020

SOT-23	SYMBOL	E	F	P	P0	P1	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	8.00 + 0.30 - 0.10	9.50 ± 1.00
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.315 + 0.012 - 0.004	0.374 ± 0.039

## Marking Code

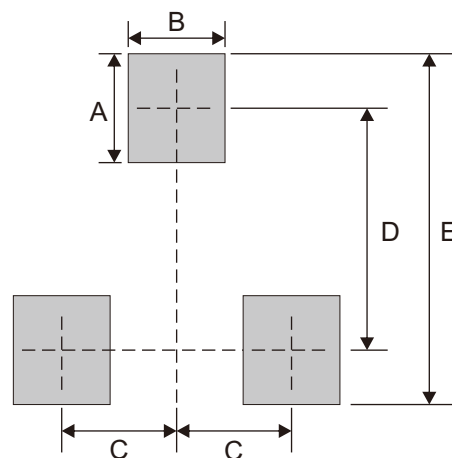
Part Number	Marking Code
BZX84CxxxCC-HF Series	See Page 2



XX/XXX = Marking code

## Suggested PAD Layout

SIZE	SOT-23	
	(mm)	(inch)
A	0.90	0.035
B	0.80	0.031
C	0.95	0.037
D	2.00	0.079
E	2.90	0.114



Note: 1. The pad layout is for reference purposes only.

## Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
SOT-23	3,000	7

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