

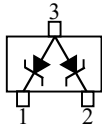


# BZX84C2V4CAH THRU BZX84C51CAH

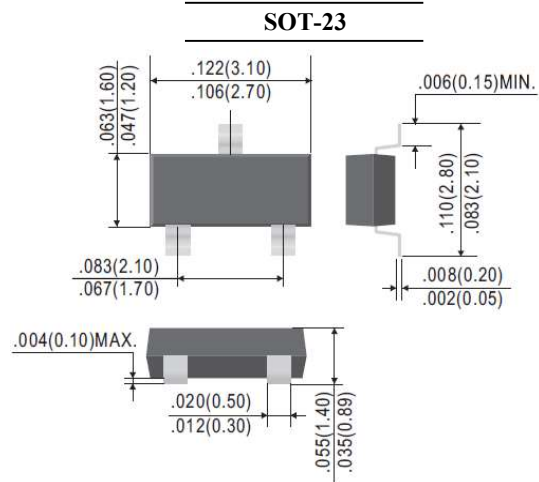
## ZENER DIODES

### FEATURES

· Zener Voltage Range – 2.4 V to 51 V



1. Cathode 2. Cathode 3. Anode



**Dimensions in inches and (millimeters)**

### Maximum Ratings ( $T_A = 25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Power Dissipation	$P_D$	350	mW
Forward Voltage at $I_F=10\text{mA}$	$V_F$	0.9	V
Thermal Resistance from Junction to Ambient (Note 1)	$R_{\theta JA}$	357	$^\circ\text{C}$
Junction and Storage Temperature Range	$T_J, T_{stg}$	-65 to +150	$^\circ\text{C}$

Note :

1. Device mounted on FR-4 substrate PC board, 2oz copper, with minimum recommended pad layout



# BZX84C2V4CAH THRU BZX84C51CAH

## ZENER DIODES

### ELECTRICAL CHARACTERISTICS

Device	Marking Code	Zener Voltage Range <sup>(2)</sup>				Dynamic Resistance		Reverse Leakage Current	
		V <sub>Z</sub> @ I <sub>ZT</sub>			I <sub>ZT</sub>	Z <sub>ZT</sub> Max.	I <sub>ZT</sub>	I <sub>R</sub> Max.	V <sub>R</sub>
		Min	Nom	Max	mA	Ω	mA	μA	V
BZX84C2V4CAH	7H	2.2	2.4	2.6	5	100	5	50.00	1.0
BZX84C2V7CAH	7J	2.5	2.7	2.9	5	100	5	20.00	1.0
BZX84C3V0CAH	MR	2.8	3.0	3.2	5	95	5	10.00	1.0
BZX84C3V3CAH	MX	3.1	3.3	3.5	5	95	5	5.00	1.0
BZX84C3V6CAH	MY	3.4	3.6	3.8	5	90	5	5.00	1.0
BZX84C3V9CAH	MZ	3.7	3.9	4.1	5	90	5	3.00	1.0
BZX84C4V3CAH	NA	4.0	4.3	4.6	5	90	5	3.00	1.0
BZX84C4V7CAH	NB	4.4	4.7	5.0	5	80	5	3.00	2.0
BZX84C5V1CAH	NC	4.8	5.1	5.4	5	60	5	2.00	2.0
BZX84C5V6CAH	ND	5.2	5.6	6.0	5	40	5	1.00	2.0
BZX84C6V2CAH	NE	5.8	6.2	6.6	5	10	5	3.00	4.0
BZX84C6V8CAH	NF	6.4	6.8	7.2	5	15	5	2.00	4.0
BZX84C7V5CAH	NH	7.0	7.5	7.9	5	15	5	1.00	5.0
BZX84C8V2CAH	NJ	7.7	8.2	8.7	5	15	5	0.70	5.0
BZX84C9V1CAH	NK	8.5	9.1	9.6	5	15	5	0.50	6.0
BZX84C10CAH	NM	9.4	10.0	10.6	5	20	5	0.20	7.0
BZX84C11CAH	NN	10.4	11.0	11.6	5	20	5	0.10	8.0
BZX84C12CAH	NP	11.4	12.0	12.7	5	25	5	0.10	8.0
BZX84C13CAH	NX	12.4	13.0	14.1	5	30	5	0.10	8.0
BZX84C15CAH	NY	14.3	15.0	15.8	5	30	5	0.05	10.5
BZX84C16CAH	NZ	15.3	16.0	17.1	5	40	5	0.05	11.2
BZX84C18CAH	PA	16.8	18.0	19.1	5	45	5	0.05	12.6
BZX84C20CAH	PB	18.8	20.0	21.2	5	55	5	0.05	14.0
BZX84C22CAH	PC	20.8	22.0	23.3	5	55	5	0.05	15.4
BZX84C24CAH	PD	22.8	24.0	25.6	5	70	5	0.05	16.8
BZX84C27CAH	PE	25.1	27.0	28.9	2	80	2	0.05	18.9
BZX84C30CAH	PF	28.0	30.0	32.0	2	80	2	0.05	21.0
BZX84C33CAH	PH	31.0	33.0	35.0	2	80	2	0.05	23.1
BZX84C36CAH	PJ	34.0	36.0	38.0	2	90	2	0.05	25.2
BZX84C39CAH	PM	37.0	39.0	41.0	2	130	2	0.05	27.3
BZX84C43CAH	PN	40.0	43.0	46.0	2	150	2	0.05	30.1
BZX84C47CAH	PP	44.0	47.0	50.0	2	170	2	0.05	32.9
BZX84C51CAH	7K	48.0	51.0	54.0	2	180	2	0.05	35.7

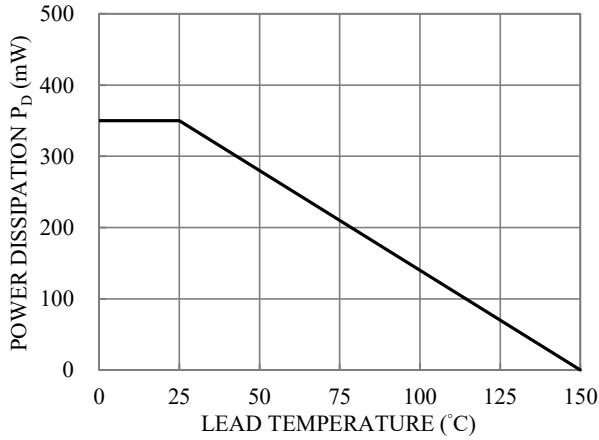
Note:

2. Tested with pulses  $t_p = 20$  ms.

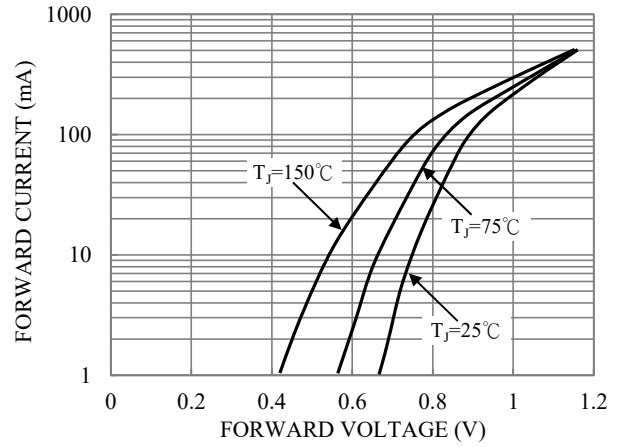


# BZX84C2V4CAH THRU BZX84C51CAH ZENER DIODES

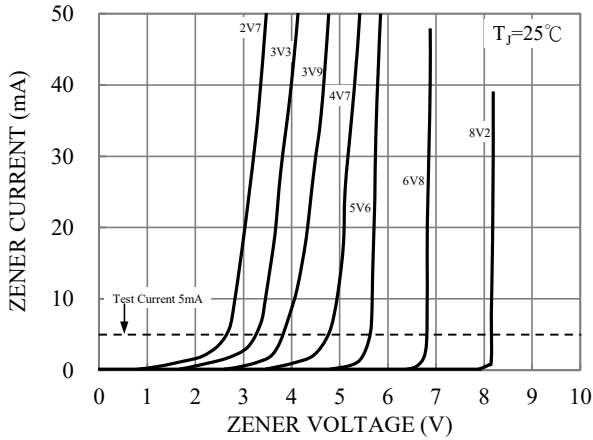
## RATINGS AND CHARACTERISTIC CURVES



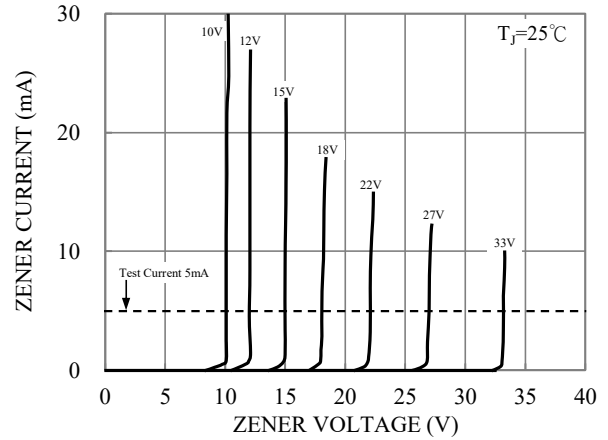
**Fig 1. Power Derating Curve**



**Fig 2. Forward Characteristics Curve**



**Fig 3. Zener Characteristics Curve**

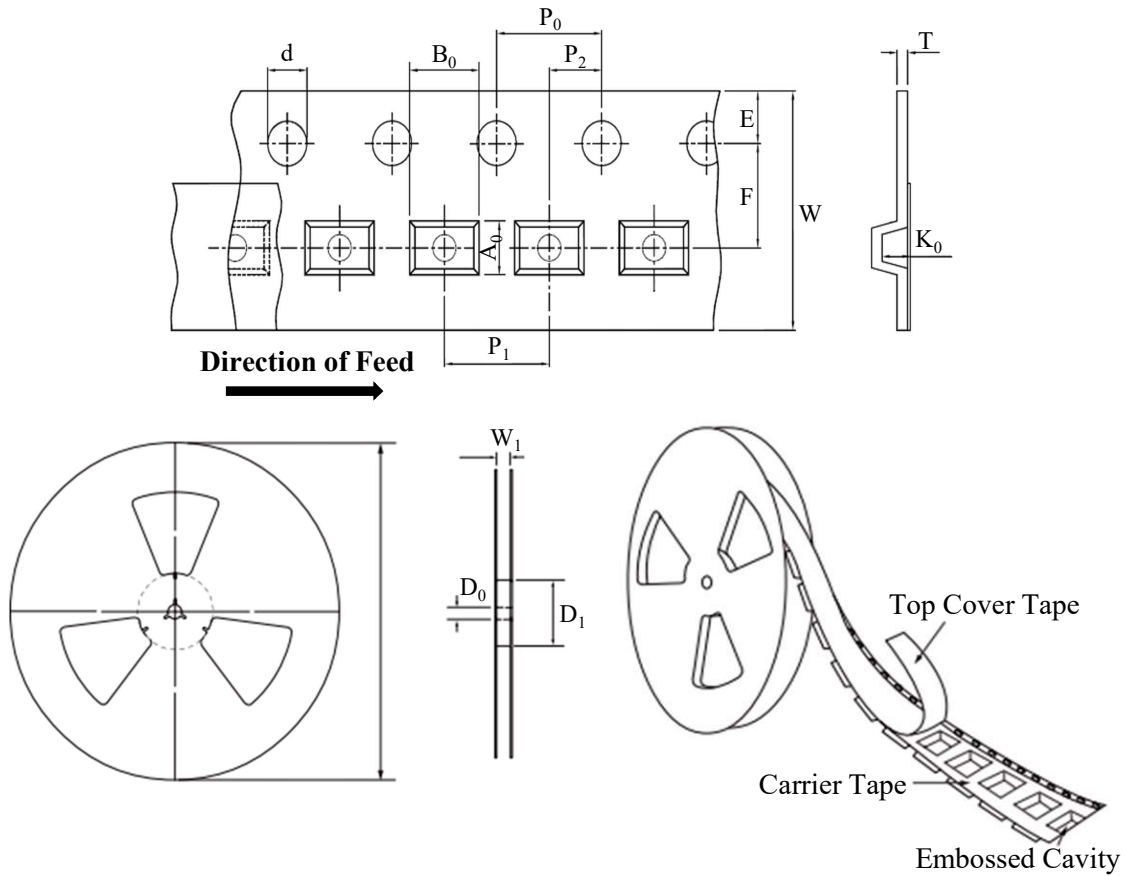


**Fig 4. Zener Characteristics Curve**



# BZX84C2V4CAH THRU BZX84C51CAH ZENER DIODES

## TAPE & REEL SPECIFICATION



Item	Symbol	SOT-23
Carrier width	A <sub>0</sub>	3.30 ± 0.10
Carrier length	B <sub>0</sub>	3.00 ± 0.10
Carrier depth	K <sub>0</sub>	1.70 ± 0.10
Sprocket hole	d	1.50 ± 0.10
Reel outside diameter	D	178.00 ± 2.00
Feed hole width	D <sub>0</sub>	13.00 ± 0.50
Reel inner diameter	D <sub>1</sub>	MIN. 50.00
Sprocket hole position	E	1.75 ± 0.10
Punch hole position	F	3.50 ± 0.10
Sprocket hole pitch	P <sub>0</sub>	4.00 ± 0.10
Punch hole pitch	P <sub>1</sub>	4.00 ± 0.10
Embossment center	P <sub>2</sub>	2.00 ± 0.10
Overall tape thickness	T	0.20 ± 0.05
Tape width	W	8.00 ± 0.20
Reel width	W <sub>1</sub>	MAX. 14.50

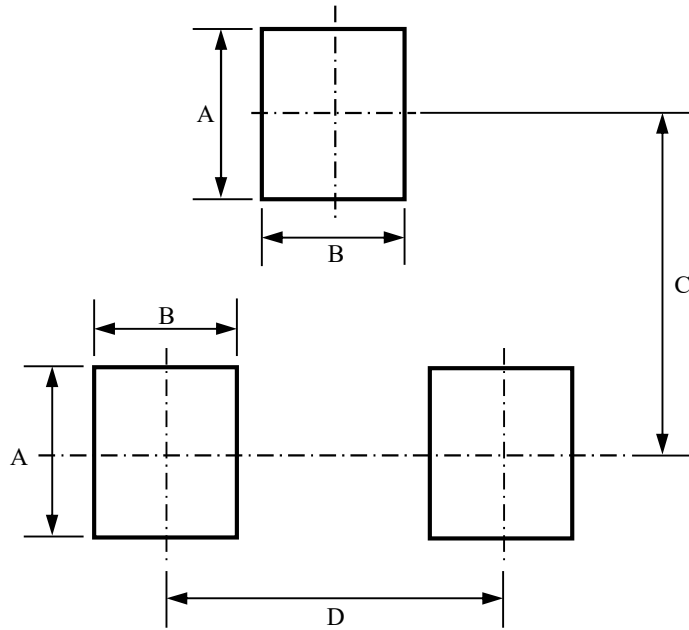
## ORDER INFORMATION

Package	Reel Size	Quantity
SOT-23	7"	3000



# BZX84C2V4CAH THRU BZX84C51CAH ZENER DIODES

## SUGGESTED SOLDER PAD LAYOUT



Unit :mm

PACKAGE	A	B	C	D
SOT-23	1.00	0.80	2.00	1.90