

## BZT52C2V0-BZT52C51

### Surface mount zener diode

#### Features

- Planar die construction.
- 500mW power dissipation on ceramic PCB.
- General purpose, medium current.
- Ideally suited for automated assembly processes.
- RoHS compliant package

#### Applications

- Zener diode.
- Ultra-small surface mount package .SOD-123

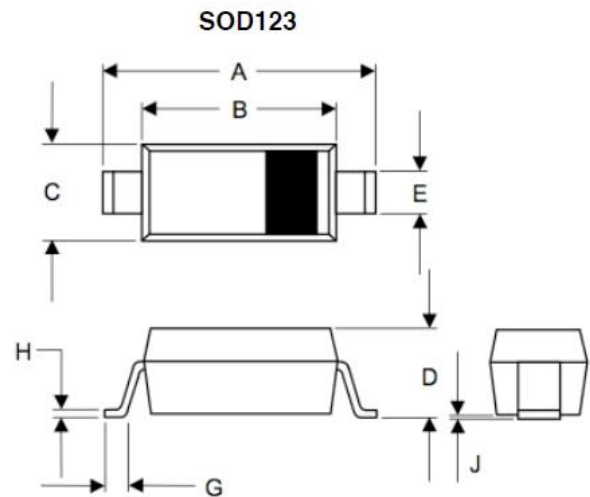
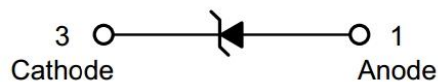
#### Packing & Order Information

3,000/Reel



**RoHS  
COMPLIANT**

Graphic symbol



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.140	.152	3.55	3.85	
B	.100	.112	2.55	2.85	
C	.055	.071	1.40	1.80	
D	-----	.053	-----	1.35	
E	.012	.031	0.30	.78	
G	.006	-----	0.15	-----	
H	-----	.01	-----	.25	
J	-----	.006	-----	.15	

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Maximum Ratings (Tc=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
VF	Forward Voltage @ IF=10mA	0.9	V
PD	Power Dissipation	500	mW
RθJA	Thermal resistance, junction to ambient air	305	°C/W
TJ	Junction temperature	150	°C
Tstg	Storage temperature range	-65 to +150	°C

Notes:

1. Device mounted on ceramic PCB; 7.6mm x 9.4mm x 0.87mm with pad areas 25mm<sup>2</sup>
2. Short duration test pulse used to minimize self-heating effect.
3. When provided, otherwise, parts are provided with date code only, and type number identifications appears on reel only.
4. f = 1KHz

## BZT52C2V0-BZT52C51

Surface mount zener diode

Electrical characteristics (Tc=25°C unless otherwise noted)

Type Number	Marking Code	Zener Voltage Range				Maximum Zener Impedance			Maximum Reverse Current		Temperature Coefficient of zener voltage @ IZTC mV/°C	
		VZ@IZT			IZT	ZZT@IZT	ZZK@IZK	IZK	IR	@ VR	Min	Max
		Nom(V)	Min(V)	Max(V)	mA	Ω		mA	μA	V		
BZT52C2V0	WY	2.0	1.91	2.09	5	100	600	1.0	150	1.0	-3.5	0
BZT52C2V4	WX	2.4	2.2	2.60	5	100	600	1.0	50	1.0	-3.5	0
BZT52C2V7	W1	2.7	2.5	2.9	5	100	600	1.0	20	1.0	-3.5	0
BZT52C3V0	W2	3.0	2.8	3.2	5	95	600	1.0	10	1.0	-3.5	0
BZT52C3V3	W3	3.3	3.1	3.5	5	95	600	1.0	5	1.0	-3.5	0
BZT52C3V6	W4	3.6	3.4	3.8	5	90	600	1.0	5	1.0	-3.5	0
BZT52C3V9	W5	3.9	3.7	4.1	5	90	600	1.0	3	1.0	-3.5	0
BZT52C4V3	W6	4.3	4.0	4.6	5	90	600	1.0	3	1.0	-3.5	0
BZT52C4V7	W7	4.7	4.4	5.0	5	80	500	1.0	3	2.0	-2.7	0.2
BZT52C5V1	W8	5.1	4.8	5.4	5	60	480	1.0	2	2.0	-2.0	1.2
BZT52C5V6	W9	5.6	5.2	6.0	5	40	400	1.0	1	2.0	0.4	2.5
BZT52C6V2	WA	6.2	5.8	6.6	5	10	150	1.0	3	4.0	1.2	3.7
BZT52C6V8	WB	6.8	6.4	7.2	5	15	80	1.0	2	4.0	2.5	4.5
BZT52C7V5	WC	7.5	7.0	7.9	5	15	80	1.0	1	5.0	3.2	5.3
BZT52C8V2	WD	8.2	7.7	8.7	5	15	80	1.0	0.7	5.0	3.8	6.2
BZT52C9V1	WE	9.1	8.5	9.6	5	15	100	1.0	0.5	6.0	4.5	7.0
BZT52C10	WF	10	9.4	10.6	5	20	150	1.0	0.2	7.0	5.4	8.0
BZT52C11	WG	11	10.4	11.6	5	20	150	1.0	0.1	8.0	6.0	9.0
BZT52C12	WH	12	11.4	12.7	5	25	150	1.0	0.1	8.0	7.0	10.0
BZT52C13	WI	13	12.4	14.1	5	30	170	1.0	0.1	8.0	7.0	11.0
BZT52C15	WJ	15	13.8	15.6	5	30	200	1.0	0.1	10.5	9.2	13.0
BZT52C16	WK	16	15.3	17.1	5	40	200	1.0	0.1	11.2	10.4	14.0
BZT52C18	WL	18	16.8	19.1	5	45	225	1.0	0.1	12.6	12.4	16.0
BZT52C20	WM	20	18.8	21.2	5	55	225	1.0	0.1	14.0	14.4	18.0
BZT52C22	WN	22	20.8	23.3	5	55	250	1.0	0.1	15.4	16.4	20.0
BZT52C24	WO	24	22.8	25.6	5	70	250	1.0	0.1	16.8	18.4	22.0
BZT52C27	WP	27	25.1	28.9	5	80	300	0.5	0.1	18.9	21.4	25.3
BZT52C30	WQ	30	28.0	32.0	5	80	300	0.5	0.1	21.0	24.4	29.4
BZT52C33	WR	33	31.0	35.0	5	80	325	0.5	0.1	23.1	27.4	33.4
BZT52C36	WS	36	34.0	38.0	5	90	350	0.5	0.1	25.2	30.4	37.4
BZT52C39	WT	39	37.0	41.0	5	130	350	0.5	0.1	27.3	33.4	41.2

## BZT52C2V0-BZT52C51

Surface mount zener diode

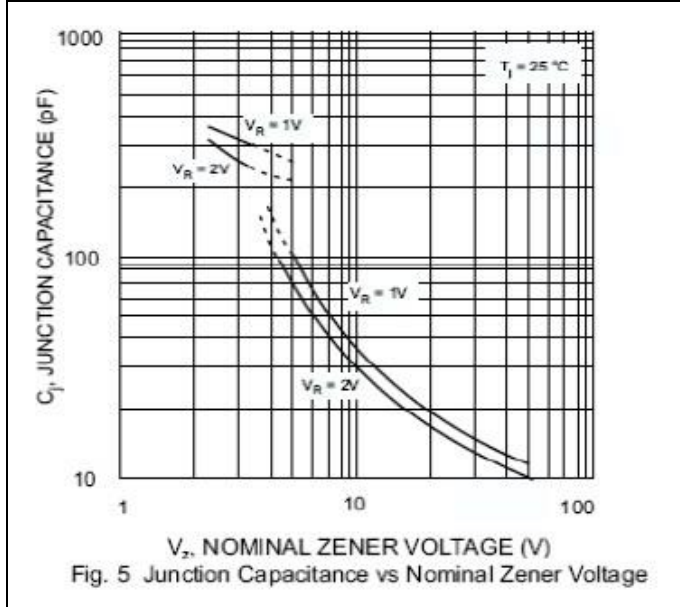
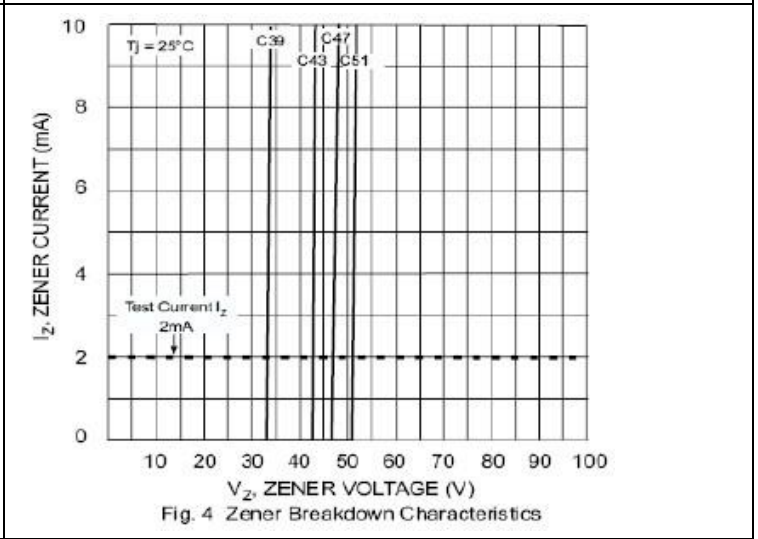
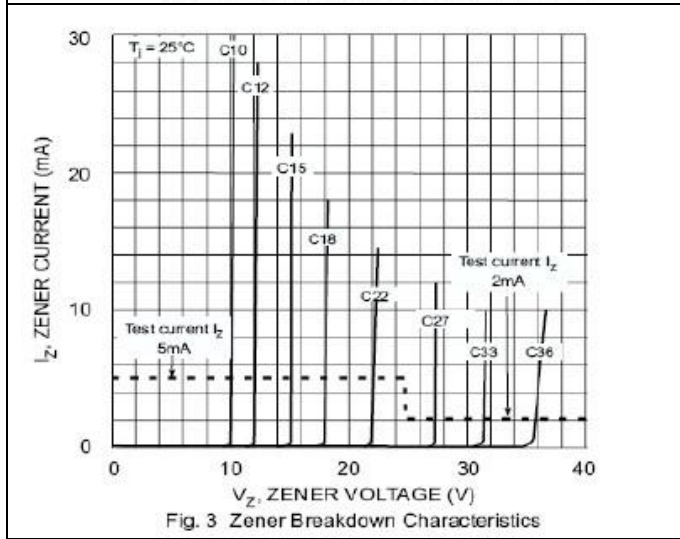
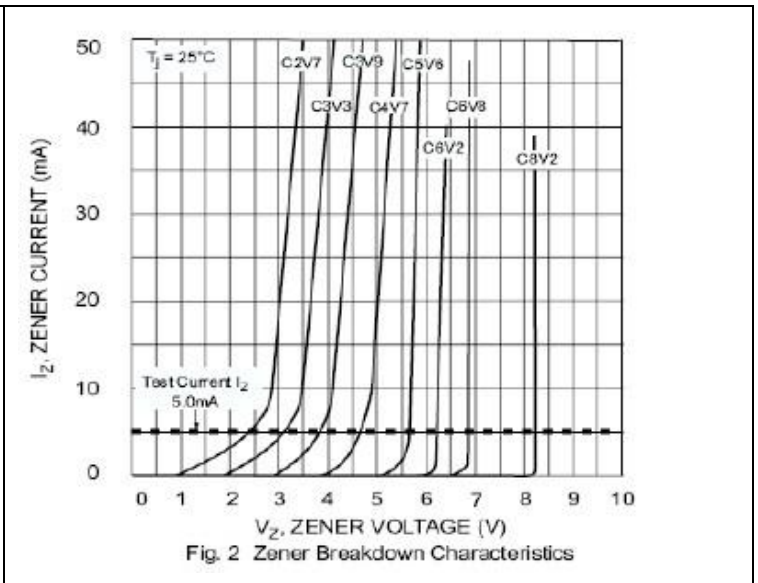
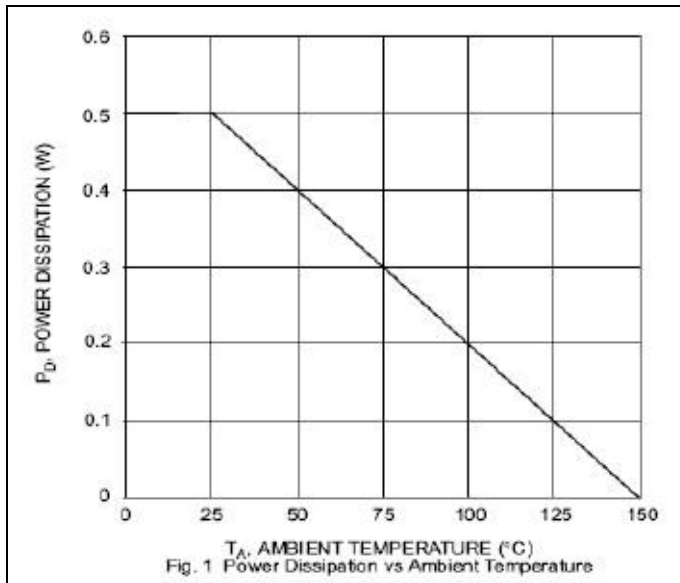
Electrical characteristics (Tc=25°C unless otherwise noted)

Type Number	Marking Code	Zener Voltage Range				Maximum Zener Impedance			Maximum Reverse Current		Temperature Coefficient of zener voltage @ IZTC mV/°C	
		VZ@IZT			IZT	ZZT@IZT	ZZK@IZK	IZK	IR	@ VR	Min	Max
		Nom(V)	Min(V)	Max(V)	mA	Ω		mA	μA	V		
BZT52C43	WU	43	40.0	46.0	5	100	700	1.0	0.1	32	10.0	12.0
BZT52C47	WV	47	44.0	50.0	5	100	750	1.0	0.1	35	10.0	12.0
BZT52C51	WW	57	48.0	54.0		100	750	1.0	0.1	38	10.0	12.0

## BZT52C2V0-BZT52C51

Surface mount zener diode

### RATINGS AND CHARACTERISTIC CURVES



## BZT52C2V0-BZT52C51

Surface mount zener diode

### Disclaimer

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE

WITHOUT NOTICE TO IMPROVE RELIABILITY, FUNCTION OR DESIGN OR OTHERWISE.

Bruckewell Technology Inc., its affiliates, agents, and employees, and all persons acting on its or their behalf (collectively, "Bruckewell"), disclaim any and all liability for any errors, inaccuracies or incompleteness contained in any datasheet or in any other disclosure relating to any product.

Bruckewell makes no warranty, representation or guarantee regarding the suitability of the products for any particular purpose or the continuing production of any product. To the maximum extent permitted by applicable law, Bruckewell disclaims

- (i) Any and all liability arising out of the application or use of any product.
- (ii) Any and all liability, including without limitation special, consequential or incidental damages.
- (iii) Any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.

Statements regarding the suitability of products for certain types of applications are based on Bruckewell's knowledge of typical requirements that are often placed on Bruckewell products in generic applications.

Such statements are not binding statements about the suitability of products for a particular application. It is the customer's responsibility to validate that a particular product with the properties described in the product specification is suitable for use in a particular application. Parameters provided in datasheets and/or specifications may vary in different applications and performance may vary over time.

Product specifications do not expand or otherwise modify Bruckewell's terms and conditions of purchase, including but not limited to the warranty expressed therein.