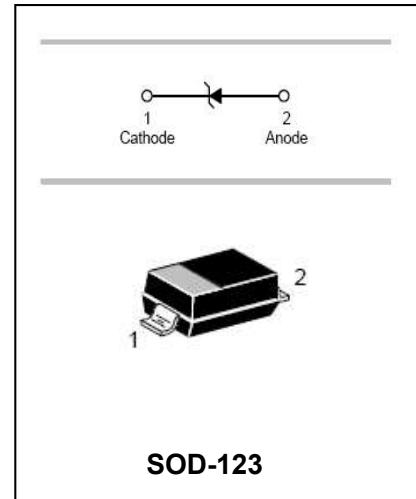


**Surface mount zener diode****BZT52C2V0-BZT52C75****FEATURES**

- Planar die construction.
- 500mW power dissipation on ceramic PCB.
- General purpose, medium current.
- Ideally suited for automated assembly processes.
- The Plastic Material Carries U/L Recognition 94V-0.

**APPLICATIONS**

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

**ORDERING INFORMATION**

Type No.	Marking	Package Code
BZT52C2V0□-BZT52C75□	See table 2	SOD-123

□: none is for Lead Free package;

“G” is for Halogen Free package.

**MAXIMUM RATING @ Ta=25°C unless otherwise specified**

Characteristic	Symbol	Value	Unit
Forward Voltage @ I <sub>F</sub> =10mA	V <sub>F</sub>	0.9	V
Power Dissipation	P <sub>d</sub>	500	mW
Thermal resistance, junction to ambient air	R <sub>θJA</sub>	305	°C/W
Thermal Resistance Junction-to-Case	R <sub>θJC</sub>	250	°C/W
Junction temperature	T <sub>j</sub>	150	°C
Storage temperature range	T <sub>stg</sub>	-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

**Surface mount zener diode****BZT52C2V0-BZT52C75**

ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

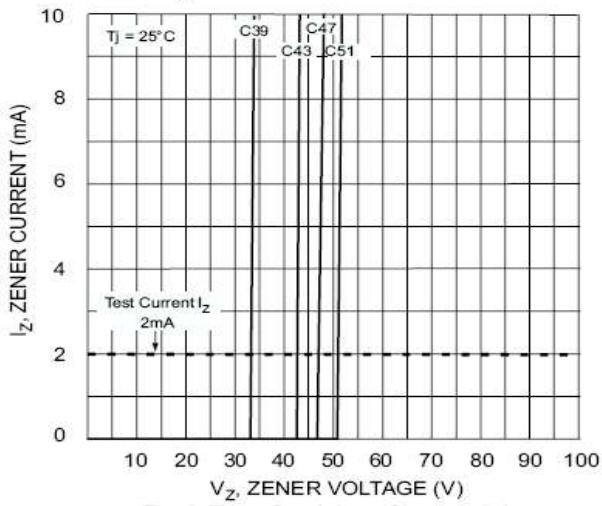
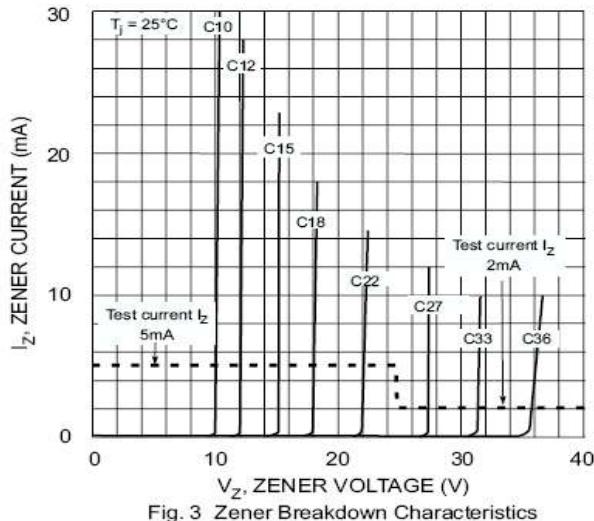
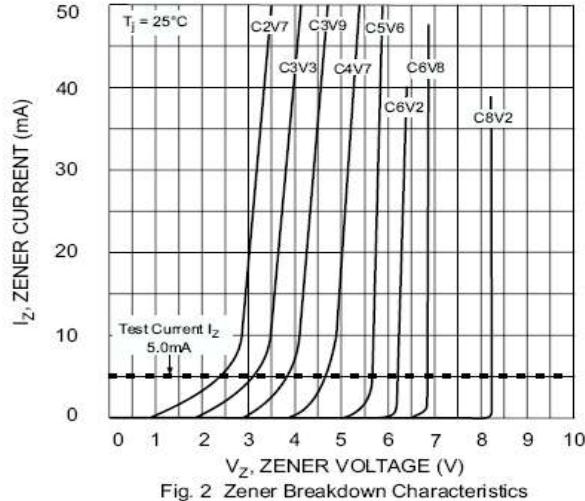
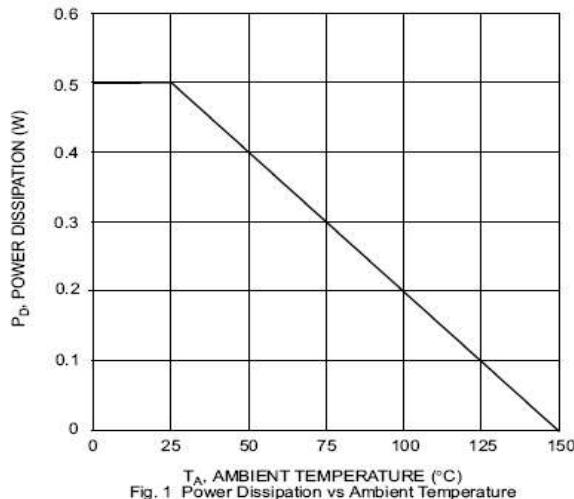
Type Number	Marking Code	Zener Voltage Range			Maximum Zener Impedance			Maximum Reverse Current		Typical Temperature Coefficient@ I <sub>ZTC</sub> mV/°C	Test Current I <sub>ZTC</sub>
		V <sub>Z</sub> @I <sub>ZT</sub>		I <sub>ZT</sub>	Z <sub>ZT</sub> @I <sub>ZT</sub>	Z <sub>ZK</sub> @I <sub>ZK</sub>	I <sub>ZK</sub>	I <sub>R</sub>	@V <sub>R</sub>		
		Nom(V)	Min(V)	Max(V)	mA	Ω	mA	μA	V	Min	Max
BZT52C2V0	WY	2.0	1.9	2.1	5	100	600	1.0	150	1	-3.5 0 5
BZT52C2V4	WX	2.4	2.2	2.6	5	100	600	1.0	50	1.0	-3.5 0 5
BZT52C2V7	W1	2.7	2.5	2.9	5	100	600	1.0	20	1.0	-3.5 0 5
BZT52C3V0	W2	3.0	2.8	3.2	5	95	600	1.0	10	1.0	-3.5 0 5
BZT52C3V3	W3	3.3	3.1	3.5	5	95	600	1.0	5.0	1.0	-3.5 0 5
BZT52C3V6	W4	3.6	3.4	3.8	5	90	600	1.0	5.0	1.0	-3.5 0 5
BZT52C3V9	W5	3.9	3.7	4.1	5	90	600	1.0	3.0	1.0	-3.5 0 5
BZT52C4V3	W6	4.3	4.0	4.6	5	90	600	1.0	3.0	1.0	-3.5 0 5
BZT52C4V7	W7	4.7	4.4	5.0	5	80	500	1.0	3.0	2.0	-3.5 0 5
BZT52C5V1	W8	5.1	4.8	5.4	5	60	480	1.0	2.0	2.0	-2.7 1.2 5
BZT52C5V6	W9	5.6	5.2	6.0	5	40	400	1.0	1.0	2.0	-2 2.5 5
BZT52C6V2	WA	6.2	5.8	6.6	5	10	150	1.0	3.0	4.0	0.4 3.7 5
BZT52C6V8	WB	6.8	6.46	7.14	5	15	80	1.0	2.0	4.0	1.2 4.5 5
BZT52C7V5	WC	7.5	7.0	7.9	5	15	80	1.0	1.0	5.0	2.5 5.3 5
BZT52C8V2	WD	8.2	7.7	8.7	5	15	80	1.0	0.7	5.0	3.2 6.2 5
BZT52C9V1	WE	9.1	8.5	9.6	5	15	100	1.0	0.5	6.0	3.8 7.0 5
BZT52C10	WF	10	9.4	10.6	5	20	150	1.0	0.2	7.0	4.5 8.0 5
BZT52C11	WG	11	10.4	11.6	5	20	150	1.0	0.1	8.0	5.4 9.0 5
BZT52C12	WH	12	11.4	12.7	5	25	150	1.0	0.1	8.0	6.0 10.0 5
BZT52C13	WI	13	12.4	14.1	5	30	170	1.0	0.1	8.0	7.0 11.0 5
BZT52C15	WJ	15	13.8	15.6	5	30	200	1.0	0.1	10.5	9.2 13.0 5
BZT52C16	WK	16	15.3	17.1	5	40	200	1.0	0.1	11.2	10.4 14.0 5
BZT52C18	WL	18	16.8	19.1	5	45	225	1.0	0.1	12.6	12.4 16.0 5
BZT52C20	WM	20	18.8	21.2	5	55	225	1.0	0.1	14.0	14.4 18.0 5
BZT52C22	WN	22	20.8	23.3	5	55	250	1.0	0.1	15.4	16.4 20.0 5
BZT52C24	WO	24	22.8	25.6	5	70	250	1.0	0.1	16.8	18.4 22.0 5
BZT52C27	WP	27	25.1	28.9	2	80	300	0.5	0.1	18.9	21.4 25.3 2
BZT52C30	WQ	30	28.0	32.0	2	80	300	0.5	0.1	21.0	24.4 29.4 2
BZT52C33	WR	33	31.0	35.0	2	80	325	0.5	0.1	23.1	27.4 33.4 2
BZT52C36	WS	36	34.0	38.0	2	90	350	0.5	0.1	25.2	30.4 37.4 2
BZT52C39	WT	39	37.0	41.0	2	130	350	0.5	0.1	27.3	33.4 41.2 2
BZT52C43	WU	43	40.0	46.0	2	100	700	1.0	0.1	32	10.0 12.0 2
BZT52C47	WV	47	44.0	50.0	2	100	750	1.0	0.1	35	10.0 12.0 2
BZT52C51	WW	51	48.0	54.0	2	100	750	1.0	0.1	38	10.0 12.0 2

## Surface mount zener diode

## BZT52C2V0-BZT52C75

Type Number	Marking Code	Zener Voltage Range				Maximum Zener Impedance			Maximum Reverse		Typical Temperature Coefficient@ $I_{ZTC}$ mV/°C	Test Current $I_{ZTC}$	
		$V_Z @ I_{ZT}$			$I_{ZT}$	$Z_{ZT} @ I_{ZT}$	$Z_{ZK} @ I_{ZK}$	$I_{ZK}$	$I_R$	@ $V_R$			
		Nom(V)	Min(V)	Max(V)	mA	Ω		mA	μA	V	Min	Max	
BZT52C56	WX.	56	53.2	58.8	2	200	400	0.5	0.045	39.2	10.0	12.0	2
BZT52C62	6E	62	58.9	65.1	2	215	423	0.5	0.045	43.4	10.0	12.0	2
BZT52C68	6F	68	64.6	71.4	2	240	447	0.5	0.045	47.6	10.0	12.0	2
BZT52C75	6H	75	71.25	78.75	2	255	470	0.5	0.045	52.5	10.0	12.0	2

### TYPICAL CHARACTERISTICS @ $T_a=25^\circ\text{C}$ unless otherwise specified



## Surface mount zener diode

## BZT52C2V0-BZT52C75

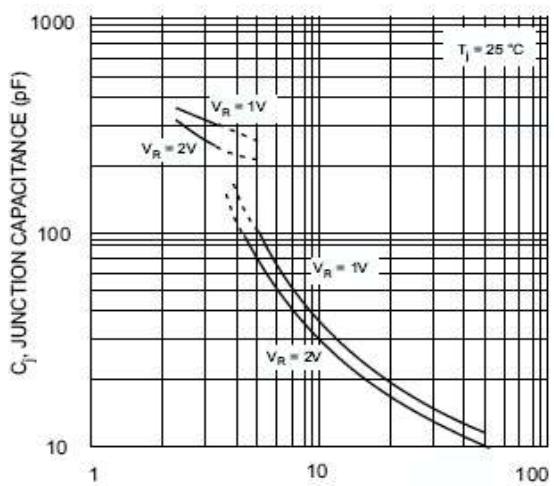
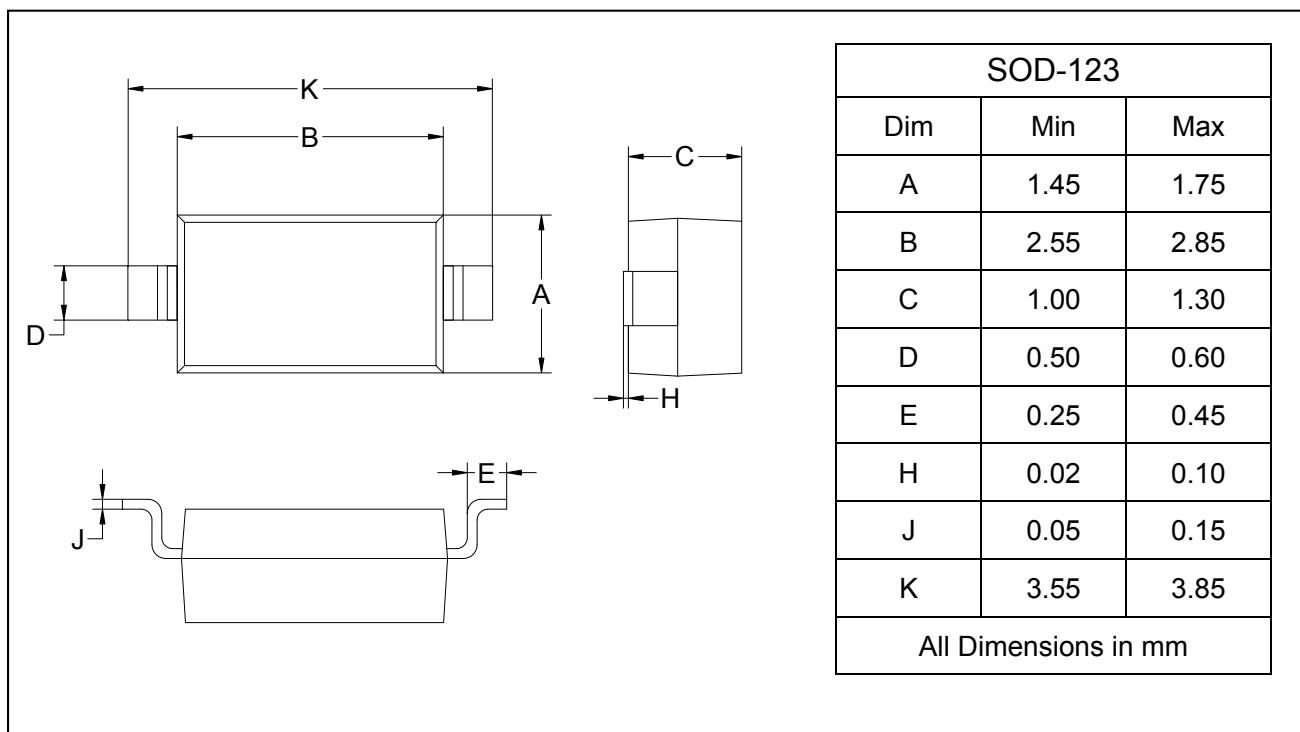


Fig. 5 Junction Capacitance vs Nominal Zener Voltage

## PACKAGE OUTLINE

Plastic surface mounted package

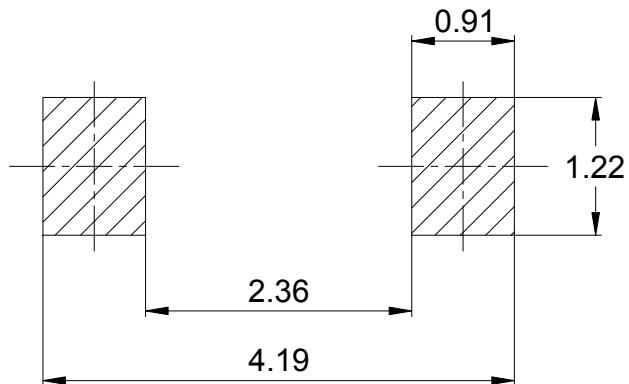
SOD-123



## Surface mount zener diode

**BZT52C2V0-BZT52C75**

### SOLDERING FOOTPRINT



Unit: mm

### PACKAGE INFORMATION

Device	Package	Shipping
BZT52C2V0-BZT52C75	SOD-123	3000/Tape&Reel