

Surface mount zener diode

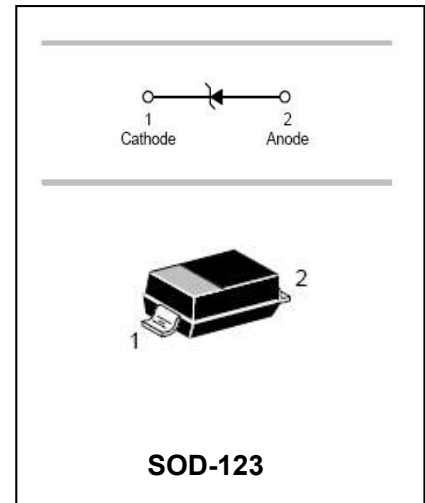
BZT52C2V0-BZT52C75

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.



Lead-free



APPLICATIONS

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

HF

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 _F =10mA	V _F	0.9	V
Power Dissipation	P _d	500	mW
Thermal resistance, junction to ambient air	R _{θJA}	305	°C/W
Thermal Resistance Junction-to-Case	R _{θJC}	250	°C/W
Junction temperature	T _j	150	°C
Storage temperature range	T _{stg}	-65 to +150	°C

Notes: 1. Device mounted on ceramic PCB; 7.6mm x 9.4mm x 0.87mm with pad areas 25mm²
 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 _{ZTC} mV/°C		Test Current I _{ZTC} mA
		V _Z @I _{ZT}			I _{ZT}	Z _{ZT} @I _{ZT}	Z _{ZK} @I _{ZK}	I _{ZK}	I _R	@V _R	Min	Max	
		Nom(V)	Min(V)	Max(V)	mA	Ω		mA	μA	V			
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} mA
		V _Z @I _{ZT}			I _{ZT}	Z _{ZT} @I _{ZT}	Z _{ZK} @I _{ZK}	I _{ZK}	I _R	@V _R	Min	Max	
		Nom(V)	Min(V)	Max(V)	mA	Ω		mA	μA	V			
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 @ Ta=25°C unless otherwise specified

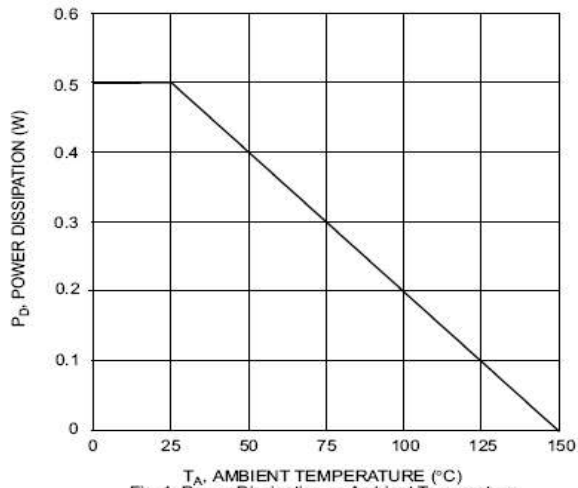


Fig. 1 Power Dissipation vs Ambient Temperature

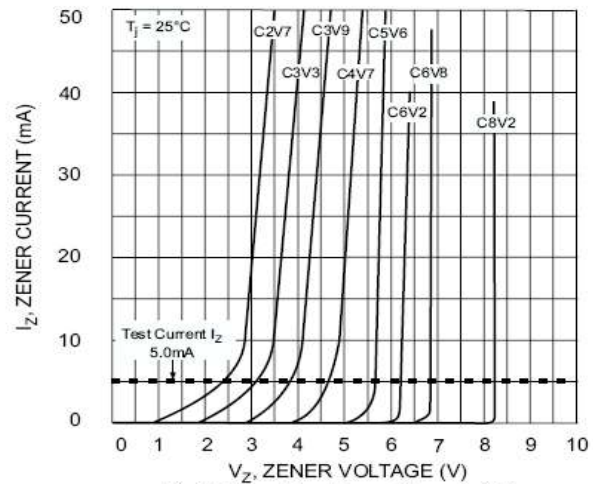


Fig. 2 Zener Breakdown Characteristics

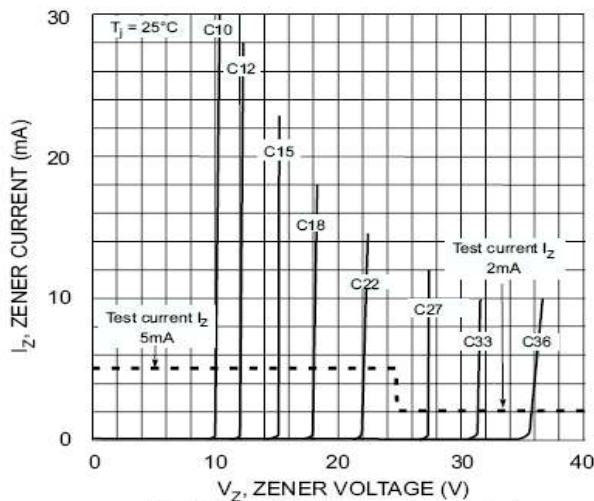


Fig. 3 Zener Breakdown Characteristics

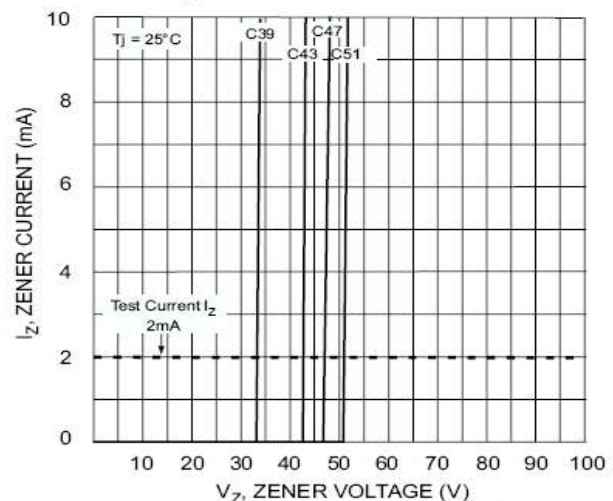


Fig. 4 Zener Breakdown Characteristics

Surface mount zener diode

BZT52C2V0-BZT52C75

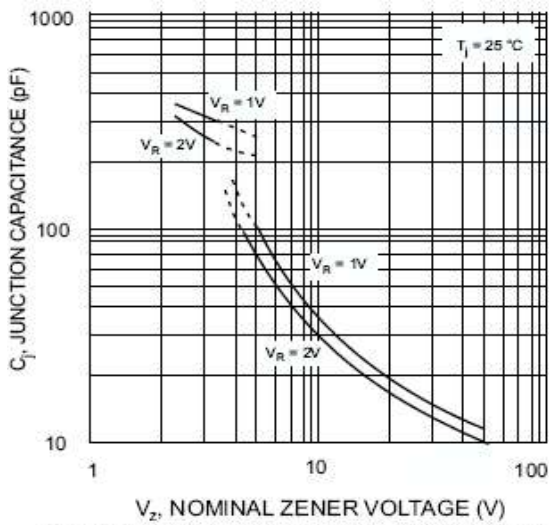
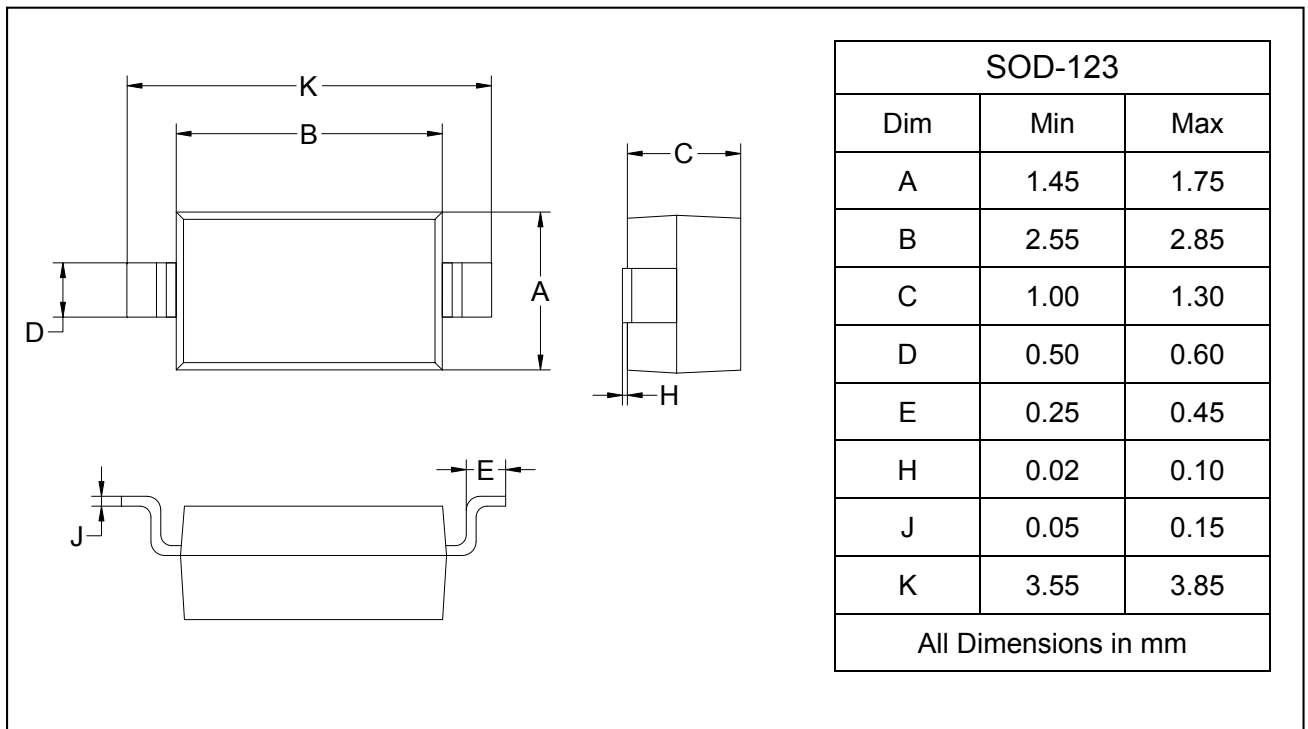


Fig. 5 Junction Capacitance vs Nominal Zener Voltage

PACKAGE OUTLINE

Plastic surface mounted package

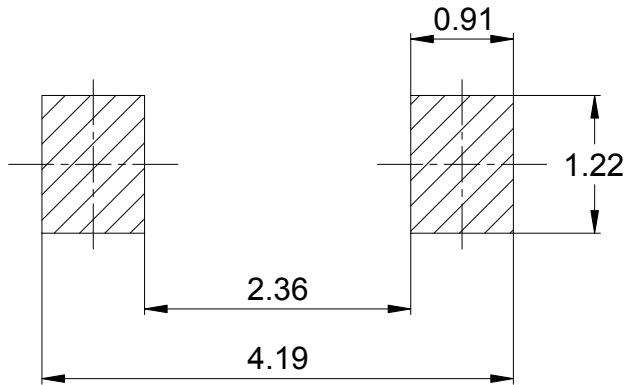
SOD-123



Surface mount zener diode

BZT52C2V0-BZT52C75

SOLDERING FOOTPRINT



Unit: mm

PACKAGE INFORMATION

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

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Zener Diodes](#) category:

Click to view products by [Galaxy](#) manufacturer:

Other Similar products are found below :

[MMSZ5245BS-7-F](#) [RKZ13B2KG#P1](#) [RKZ5.6B2KJ#R1](#) [EDZTE6113B](#) [EDZTE6116B](#) [EDZTE616.8B](#) [1N747A](#) [1N966B](#) [NTE5116A](#)
[NTE5121A](#) [NTE5139A](#) [NTE5147A](#) [NTE5152A](#) [NTE5155A](#) [NTE5156A](#) [NTE5164A](#) [JANS1N4974US](#) [SMAJ4764A-TP](#) [RKZ5.1BKU#P6](#)
[3SMAJ5946B-TP](#) [3SMAJ5950B-TP](#) [3SMBJ5920B-TP](#) [3SMBJ5925B-TP](#) [TDZTR24](#) [441774C](#) [MMSZ4678-TP](#) [MMSZ5232BQ-13-F](#)
[BZG04-36](#) [BZG05C9V1-HE3-TR](#) [HZM30NBTR-E](#) [UDZTE-175.1B](#) [3SMAJ5945B-TP](#) [3SMAJ5947B-TP](#) [3SMBJ5941B-TP](#) [DL4746A-TP](#)
[RKZ18B2KK#R1](#) [RKZ10B2KL#R1](#) [RKZ6.8B2KL#R1](#) [RKZ8.2B2KL#R1](#) [DZ2S240M0L](#) [SMAZ27-TP](#) [SMBZ5920B-E3/52](#) [ZMM3.0](#)
[RD16UM-T1-A](#) [RD39S-T1-A](#) [RD9.1S-T1-A](#) [RD10S-T1-A](#) [RD20S-T1-A](#) [RD2.2S-T1-A](#) [RD2.7UM-T1-A](#)