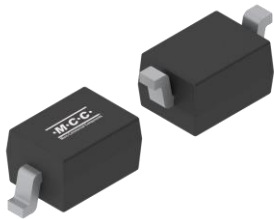


Features

- Standard Vz Tolerance is $\pm 5\%$
- Planar Die Construction
- Ideally Suited for Automated Assembly Processes



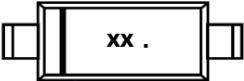
Mechanical Data

- Package: SOD-323 package name
- Moisture Sensitivity: Level 1, per J-STD-020
- Halogen Free. "Green" Device (Note1)
- Epoxy Meets UL 94 V-0 Flammability Rating
- Lead Free Finish & RoHS Compliant
- Weight: 0.004 g (approximate)



SOD-323

Body Marking and Pin Layout

Body Marking	Internal structure
 XX: Device Marking Code¹ Bar: Cathode Pin Dot (optional): Manufacturing site marking ¹ Refer to the Marking Code for the specific device code.	

Ordering Information

Product Name	Reel Size	Packing Type	Qty/Reel
BZT52C2V0S-TP THRU BZT52C75S-TP	7"	Tape & Reel	3,000
BZT52C2V0S -13P THRU BZT52C75S -13P	13"	Tape & Reel	10,000

For packaging details, visit our website at <https://www.mccsemi.com/Package/List>

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

Parameter	Symbol	Rating	Unit
Power Dissipation ^(Note2)	P_D	200	mW
Maximum Instantaneous Forward Voltage @ $I_F = 10\text{mA}$	V_F	0.9	V
Operating Junction Temperature Range	T_J	-55 to 150	$^{\circ}\text{C}$
Storage Temperature Range	T_{STG}	-55 to 150	$^{\circ}\text{C}$

Thermal characteristics ($T_A=25^{\circ}\text{C}$ unless otherwise specified)

Parameter	Symbol	Rating	Unit
Thermal Resistance from Junction to Ambient ^(Note 2)	$R_{\theta JA}$	625	$^{\circ}\text{C}/\text{W}$

Notes:

1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
2. Mounted on PCB.

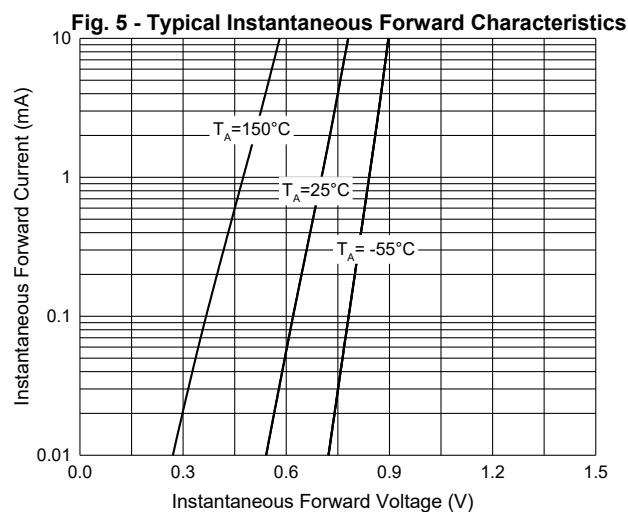
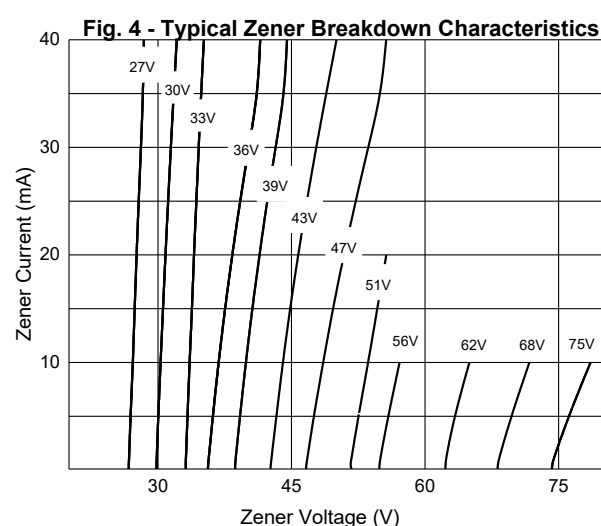
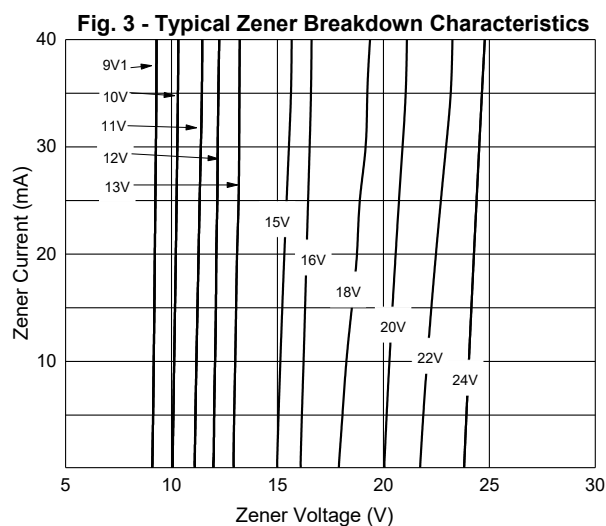
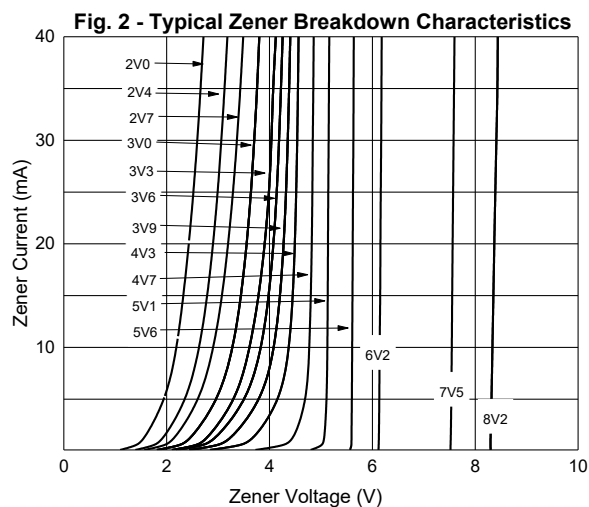
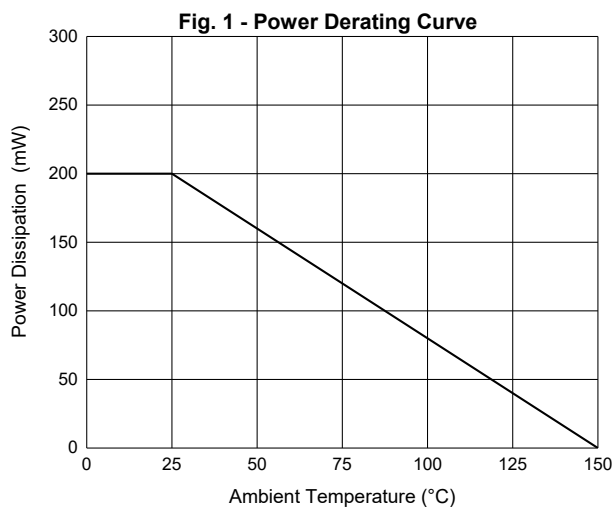
Electrical Characteristics (T_A=25°C unless otherwise specified)

Part Number	Zener Voltage ^(Note 3)			Test Current		Maximum Dynamic Impedance		Maximum Reverse Leakage Current		Typical Temperature Coefficient		Marking Code
	V _Z @I _{ZT}			I _{ZT}	I _{ZK}	Z _{ZT} @I _{ZT}	Z _{ZK} @I _{ZK}	I _R	V _R	S _Z @I _{ZT}		
	Min(V)	Typ(V)	Max(V)	mA	mA	Ω	Ω	μA	V	Min (mV/°C)	Max (mV/°C)	
BZT52C2V0S	1.9	2	2.1	5	1	100	600	90	1	-3.5	0	WY
BZT52C2V4S	2.28	2.4	2.56	5	1	100	600	50	1	-3.5	0	WX
BZT52C2V7S	2.5	2.7	2.9	5	1	100	600	20	1	-3.5	0	W1
BZT52C3V0S	2.8	3	3.2	5	1	95	600	10	1	-3.5	0	W2
BZT52C3V3S	3.1	3.3	3.5	5	1	95	600	5	1	-3.5	0	W3
BZT52C3V6S	3.4	3.6	3.8	5	1	90	600	5	1	-3.5	0	W4
BZT52C3V9S	3.7	3.9	4.1	5	1	90	600	3	1	-3.5	0	W5
BZT52C4V3S	4	4.3	4.6	5	1	90	600	3	1	-3.5	0	W6
BZT52C4V7S	4.4	4.7	5	5	1	80	500	3	2	-3.5	0.2	W7
BZT52C5V1S	4.8	5.1	5.4	5	1	60	480	2	2	-2.7	1.2	W8
BZT52C5V6S	5.2	5.6	6	5	1	40	400	1	2	-2	2.5	W9
BZT52C6V2S	5.8	6.2	6.6	5	1	10	150	3	4	0.4	3.7	WA
BZT52C6V8S	6.4	6.8	7.2	5	1	15	80	2	4	1.2	4.5	WB
BZT52C7V5S	7	7.5	7.9	5	1	15	80	1	5	2.5	5.3	WC
BZT52C8V2S	7.7	8.2	8.7	5	1	15	80	0.7	5	3.2	6.2	WD
BZT52C9V1S	8.5	9.1	9.6	5	1	15	100	0.5	6	3.8	7	WE
BZT52C10S	9.4	10	10.6	5	1	20	150	0.2	7	4.5	8	WF
BZT52C11S	10.4	11	11.6	5	1	20	150	0.1	8	5.4	9	WG
BZT52C12S	11.4	12	12.7	5	1	25	150	0.1	8	6	10	WH
BZT52C13S	12.4	13	14.1	5	1	30	170	0.1	8	7	11	WI
BZT52C15S	13.8	15	15.6	5	1	30	200	0.1	10.5	9.2	13	WJ
BZT52C16S	15.3	16	17.1	5	1	40	200	0.1	11.2	10.4	14	WK
BZT52C18S	16.8	18	19.1	5	1	45	225	0.1	12.6	12.4	16	WL
BZT52C20S	18.8	20	21.2	5	1	55	225	0.1	14	14.4	18	WM
BZT52C22S	20.8	22	23.3	5	1	55	250	0.1	15.4	16.4	20	WN
BZT52C24S	22.8	24	25.6	5	1	70	250	0.1	16.8	18.4	22	WO
BZT52C27S	25.1	27	28.9	2	0.5	80	300	0.1	18.9	21.4	25.3	WP
BZT52C30S	28	30	32	2	0.5	80	300	0.1	21	24.4	29.4	WQ
BZT52C33S	31	33	35	2	0.5	80	325	0.1	23.1	27.4	33.4	WR
BZT52C36S	34	36	38	2	0.5	90	350	0.1	25.2	30.4	37.4	WS
BZT52C39S	37	39	41	2	0.5	130	350	0.1	27.3	33.4	41.2	WT
BZT52C43S	40	43	46	2	0.5	100	700	0.1	32	37.6	46.6	WU
BZT52C47S	44	47	50	2	0.5	100	750	0.1	35	46	51.8	WV
BZT52C51S	48	51	54	2	0.5	100	750	0.1	38	46.6	51.2	WW
BZT52C56S	53	56	59	2	0.5	200	400	0.05	39.2	52.2	63.8	X1
BZT52C62S	58	62	66	2	0.5	215	450	0.05	43.4	58.8	71.6	X8
BZT52C68S	64	68	72	2	0.5	240	475	0.05	47.6	65.6	79.8	X9
BZT52C75S	70	75	79	2	0.5	255	500	0.05	52.5	73.4	88.6	X10

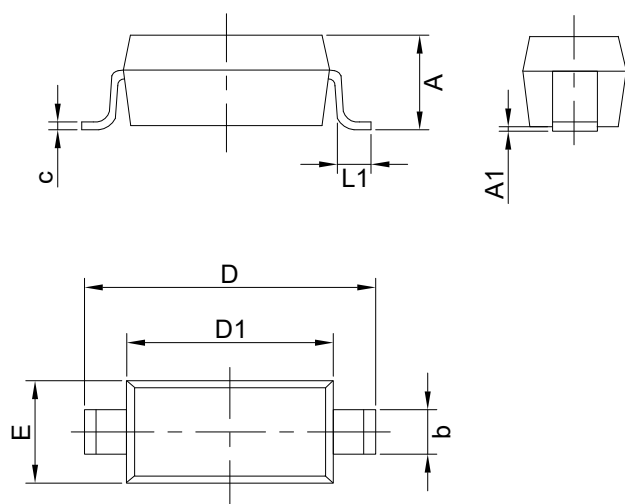
Notes:

3. Short-duration test pulses are used to minimize the self-heating effect.

Curve Characteristics



Package Outline

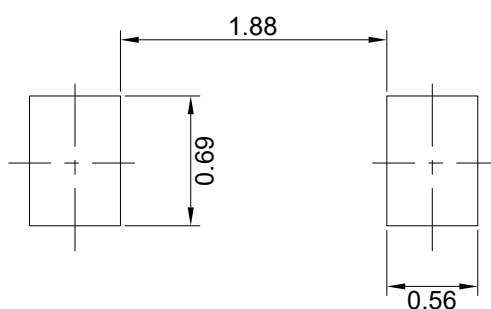


DIM	INCH		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.031	0.045	0.80	1.15*	Note 1
A1	0.000	0.006	0.00	0.15	
b	0.010	0.016	0.25	0.40	
c	0.003	0.010	0.08	0.25	
D	0.090	0.107	2.30	2.70	
D1	0.063	0.071	1.60	1.80	
E	0.045	0.055	1.15	1.40	
L1	0.004	0.018	0.10	0.45	

Notes:

1. Dimension A for products from manufacturing site VN is controlled at max 1.10 mm.

Suggested Pad Layout (Unit:mm)



Notes:

1. The suggested land pattern dimensions have been provided for reference only.
2. For further information, please refer to document IPC-7351A.

DISCLAIMERS

Micro Commercial Components Corp. (MCC) reserves the right to make changes to any product without prior notice, including corrections, modifications, enhancements, improvements, or other changes. MCC's products are not designed, authorized, or warranted for use in medical, military, aircraft, space, or life support equipment, nor in applications where failure or malfunction of an MCC product can reasonably be expected to result in personal injury, death, or severe property or environmental damage. MCC does not assume liability for any application or use of the products described herein, nor does it convey any license under its patent rights or those of others. Users of MCC's products in any such application assume all risks associated with their use and agree to hold MCC and all companies whose products are represented on our website harmless against any damages. MCC's products are not authorized for use as critical components in life support devices or systems without the express written approval of MCC.

Counterfeiting of semiconductor parts is an increasing problem in the industry. MCC is taking strong measures to protect both ourselves and our customers from counterfeit products. We strongly encourage customers to purchase our parts either directly from MCC or through Authorized Distributors, who are listed by country on our website. Products purchased directly from MCC or from Authorized Distributors are genuine, have full traceability, and meet our quality standards for handling and storage. MCC will not provide warranty coverage or any other assistance for parts bought from Unauthorized Sources.

This document, along with the item(s) described within, may be subject to export control regulations. Exporting these items may require prior authorization from national authorities.

Terms and Conditions - MCC products are sold subject to the general terms and conditions of commercial sale, as published at <https://www.mccsemi.com/Home/TermsAndConditions>.