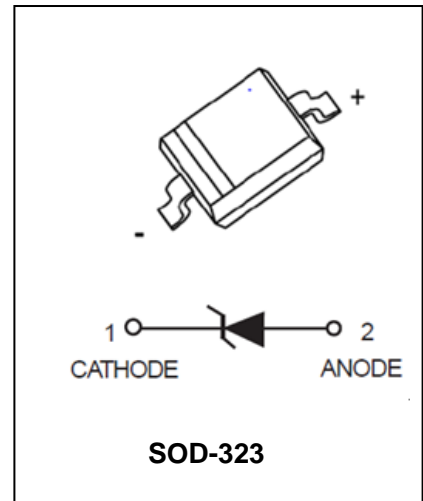


### FEATURES

- Miniaturized package size for high density applications
- 5% high precision regulated voltage stability
- High reliability chip and packaging process

### APPLICATIONS

- Mobile phone
- Portable device
- High precision computer motherboard



### ORDERING INFORMATION

Type No.	Marking	Package Code
BZT52C2V4S-BZT52C75S	See Page2-3	SOD-323

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

Characteristic	Symbol	Value	Unit
Forward Voltage @ I <sub>F</sub> =10mA	V <sub>F</sub>	0.85	V
Power Dissipation <sup>①</sup>	P <sub>d</sub>	200	mW
Thermal resistance, junction to ambient air <sup>①</sup>	R <sub>θjA</sub>	556	°C/W
Thermal resistance, junction to ambient air <sup>②</sup>	R <sub>θjA</sub>	417	°C/W
Junction temperature	T <sub>j</sub>	150	°C
Storage temperature range	T <sub>stg</sub>	-55~150	°C

Notes: 1. FR-5=1.0x0.75x0.62 in.

2. Alumina=0.4x0.3x0.024 in.,99.5% alumina

## ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

DEVICE	Marking	VZ(V) @ IZ=5mA			ZZ @ IZ = 1 mA	ZZ @ IZ = 5 mA	ZZ @ IZ = 20mA	IR@VR	VR	Typical Temperature Coefficient(mV/°C)@ IZ=5mA	
		MIN	NOM	MAX	(Ω)	(Ω)	(Ω)	(uA)	V	Min	Max
BZT52C2V4S	WX	2.28	2.4	2.52	570	95	47.5	40	1	-3.5	0
BZT52C2V7S	W1	2.57	2.7	2.84	570	95	47.5	16	1	-3.5	0
BZT52C3V0S	W2	2.85	3	3.15	570	90	47.5	8	1	-3.5	0
BZT52C3V3S	W3	3.14	3.3	3.47	570	90	38	4	1	-3.5	0
BZT52C3V6S	W4	3.42	3.6	3.78	570	85	38	4	1	-3.5	0
BZT52C3V9S	W5	3.72	3.9	4.08	570	85	28.5	2.4	1	-3.5	0
BZT52C4V3S	W6	4.09	4.3	4.52	570	85	28.5	2.4	1	-3.5	0
BZT52C4V7S	W7	4.47	4.7	4.94	475	75	14	2.4	2	-3.5	0.2
BZT52C5V1S	W8	4.85	5.1	5.36	455	57	14	1.6	2	-2.7	1.2
BZT52C5V6S	W9	5.32	5.6	5.88	380	38	9.5	0.8	2	-2	2.5
BZT52C6V2S	WA	5.89	6.2	6.51	150	9.5	5.7	2.4	4	0.4	3.7
BZT52C6V8S	WB	6.46	6.8	7.14	76	14.2	5.7	1.6	4	1.2	4.5
BZT52C7V5S	WC	7.13	7.5	7.88	76	14.2	5.7	0.8	5	2.5	5.3
BZT52C8V2S	WD	7.79	8.2	8.61	76	14.2	5.7	0.56	5	3.2	6.2
BZT52C9V1S	WE	8.65	9.1	9.56	95	14.2	7.6	0.16	7	3.8	7.0
BZT52C10S	WF	9.50	10	10.50	142.5	19	9.5	0.08	8	4.5	8.0
BZT52C11S	WG	10.45	11	11.55	142.5	19	9.5	0.08	8	5.4	9.0
BZT52C12S	WH	11.4	12	12.60	150	23.7	9.5	0.08	8	6.0	10.0
BZT52C13S	WI	12.35	13	13.65	170	28.5	14.2	0.08	8	7.0	11.0
BZT52C15S	WJ	14.25	15	15.75	190	28.5	19	0.04	11	9.2	13.0
BZT52C16S	WK	15.2	16	16.80	190	38	19	0.04	11	10.4	14.0
BZT52C18S	WL	17.10	18	18.90	213	42.7	19	0.04	13	12.4	16.0
BZT52C20S	WM	19.0	20	21.0	213	52.2	19	0.04	14	14.4	18.0
BZT52C22S	WN	20.9	22	23.10	237	52.2	23.7	0.04	15	16.4	20.0
BZT52C24S	WO	22.8	24	25.2	250	66.5	23.7	0.04	17	18.4	22.0

DEVICE	Marking	VZ(V) @ IZ=2mA			ZZ @ IZ = 0.5 mA	ZZ @ IZ = 2 mA	ZZ @ IZ = 10mA	IR@VR	VR	Typical Temperature Coefficient(mV/°C)@ IZ=2mA	
		MIN	NOM	MAX	(Ω)	(Ω)	(Ω)	(uA)	V	Min	Max
BZT52C27S	WP	25.65	27	28.35	295	75	43	0.04	19	21.4	25.3
BZT52C30S	WQ	28.50	30	31.50	295	75	48	0.04	21	24.4	29.4
BZT52C33S	WR	31.35	33	34.65	320	75	53	0.04	23	27.4	33.4
BZT52C36S	WS	34.20	36	37.80	345	85	58	0.04	25	30.4	37.4
BZT52C39S	WT	37.05	39	40.95	345	125	68	0.04	27	33.4	41.2
BZT52C43S	WU	40.85	43	45.15	370	145	78	0.04	30	37.6	46.6
BZT52C47S	WV	44.65	47	49.35	370	165	88	0.04	33	42.0	51.8
BZT52C51S	WW	48.45	51	53.55	395	175	98	0.04	36	46.6	57.2
BZT52C56S	XW	52.2	56	58.8	420	195	108	0.04	39	52.2	63.8
BZT52C62S	6E	58.9	62	65.1	445	210	118	0.04	43	58.8	71.6
BZT52C68S	6F	64.6	68	71.4	470	235	128	0.04	48	65.6	79.8
BZT52C75S	6H	71.25	75	78.75	495	250	138	0.04	53	73.4	88.6

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

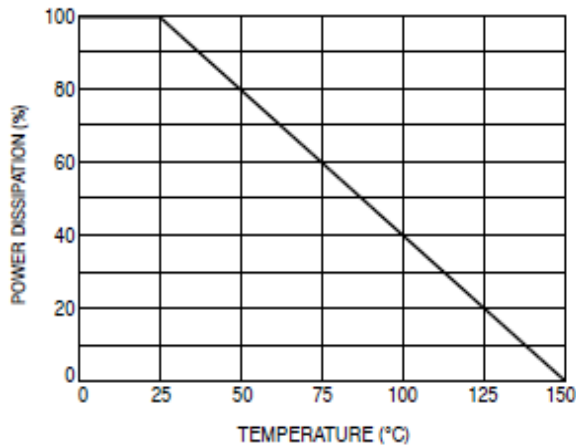


Fig.1 Power Dissipation vs Ambient Temperature

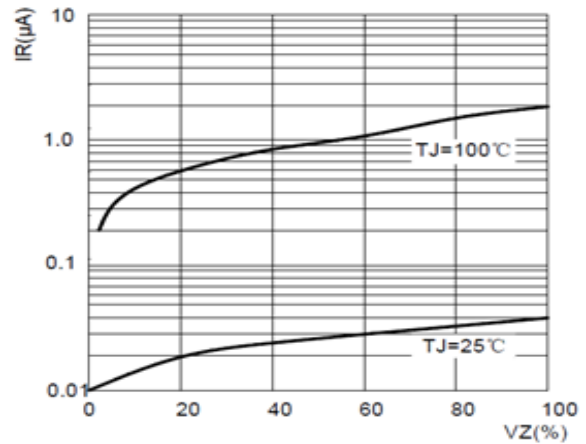


Fig.2 Typical reverse characteristics

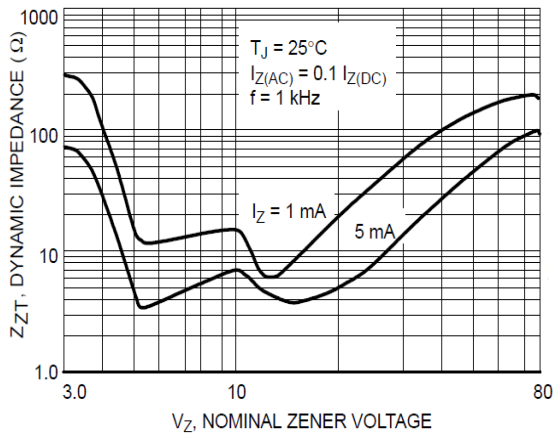


Fig.3 Characteristic curve of reverse voltage and impedance

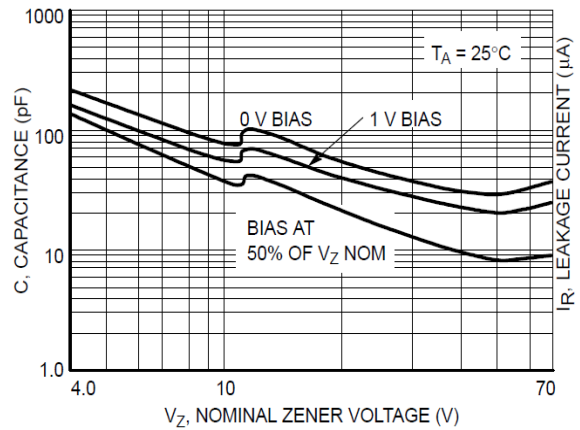
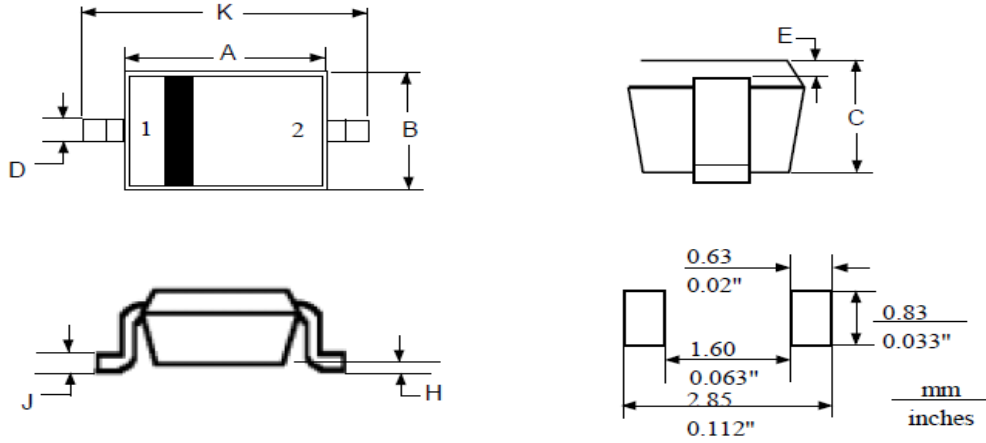


Fig.4 Typical capacitance characteristic curve

## SOD-323 PACKAGE OUTLINE



**NOTES:**

1. CONTROLLING DIMENSION: MILLIMETERS
2. LEAD THICKNESS SPECIFIED PER L/F DRAWING WITH SOLDER PLATING.

DIN	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	1.60	1.80	0.063	0.071
B	1.15	1.35	0.045	0.053
C	0.80	1.00	0.031	0.039
D	0.25	0.40	0.010	0.016
E	0.15 REF		0.006 REF	
H	0.00	0.10	0.0000	0.004
J	0.089	0.177	0.0035	0.0070
K	2.30	2.70	0.091	0.106

STYLE 1:  
PIN 1: CATHODE  
2: ANODE

## PACKAGE INFORMATION

Device	Package	Shipping
BZT52C2V4S- BZT52C75S	SOD-323	3000/Tape&Reel