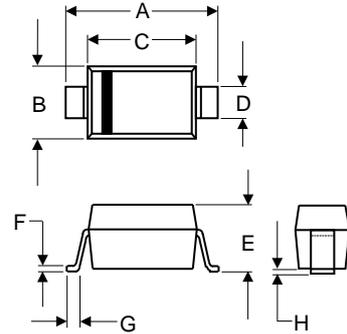


### Features

- \* Planar die construction
- \* Ultra-Small Surface Mount Package
- \* Ideally suited for automated assembly processes



**RoHS**  
COMPLIANT



SOD-323				
DIM.	INCHES		MM	
	MIN	MAX	MIN	MAX
A	0.091	0.110	2.30	2.80
B	0.045	0.053	1.15	1.35
C	0.063	0.071	1.60	1.80
D	0.010	0.016	0.25	0.40
E	0.031	0.043	0.80	1.10
F	---	0.006	---	0.15
G	0.004	0.020	0.10	0.50
H	---	0.004	---	0.10

### Mechanical Data

- \* Case: SOD-323, Molded plastic
- \* Terminals: Solderable per MIL-STD-202, Method 208
- \* Polarity: Cathode Band

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

Parameter	Symbol	Value	Unit
Power Dissipation	$P_{\text{tot}}$	200	mW
Junction Temperature	$T_j$	150	$^\circ\text{C}$
Storage Temperature Range	$T_{\text{stg}}$	- 55 to + 150	$^\circ\text{C}$

### Characteristics ( $T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Max.	Unit
Thermal Resistance Junction to Ambient Air	$R_{\theta\text{JA}}$	417	$^\circ\text{C}/\text{W}$
Forward Voltage at $I_F = 10 \text{ mA}$	$V_F$	0.9	V



## BZT52C2V4S THRU BZT52C75S

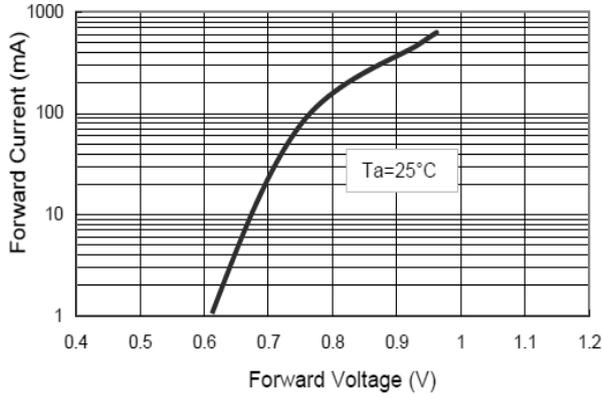
### Surface Mount Zener Diodes

#### Electrical Characteristics (T<sub>A</sub>=25°C unless otherwise noted)

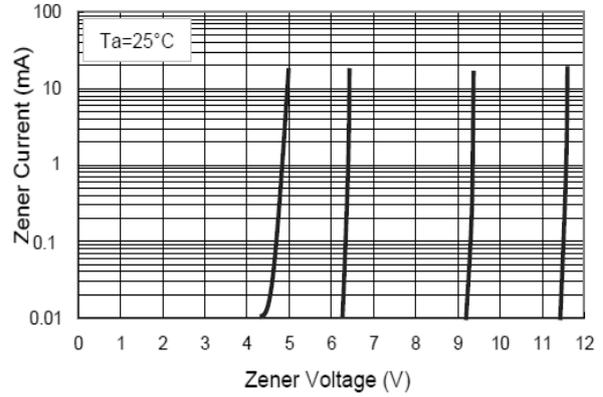
Part Number	Marking Code	VZ @ IZT (Volt)			IZT(mA)	ZZT @ IZT(Ω) Max	IZK(mA)	ZZK@ IZK(Ω) Max	IR @ VR(μA) Max	VR(V)
		Min	Nom	Max						
BZT52C2V4S	1C	2.28	2.4	2.52	5	100	1	564	45	1
BZT52C2V7S	1D	2.57	2.7	2.84	5	100	1	564	18	1
BZT52C3V0S	1E	2.85	3	3.15	5	100	1	564	9	1
BZT52C3V3S	1F	3.14	3.3	3.47	5	95	1	564	4.5	1
BZT52C3V6S	1H	3.42	3.6	3.78	5	90	1	564	4.5	1
BZT52C3V9S	1J	3.71	3.9	4.1	5	90	1	564	2.7	1
BZT52C4V3S	1K	4.09	4.3	4.52	5	90	1	564	2.7	1
BZT52C4V7S	1M	4.47	4.7	4.94	5	80	1	470	2.7	2
BZT52C5V1S	1N	4.85	5.1	5.36	5	60	1	451	1.8	2
BZT52C5V6S	1P	5.32	5.6	5.88	5	40	1	376	0.9	2
BZT52C6V2S	1R	5.89	6.2	6.51	5	10	1	141	2.7	4
BZT52C6V8S	1X	6.46	6.8	7.14	5	15	1	75	1.8	4
BZT52C7V5S	1Y	7.11	7.5	7.86	5	15	1	75	0.9	5
BZT52C8V2S	1Z	7.79	8.2	8.61	5	15	1	75	0.63	5
BZT52C9V1S	2A	8.65	9.1	9.56	5	15	1	94	0.45	6
BZT52C10S	2B	9.5	10	10.5	5	20	1	141	0.18	7
BZT52C11S	2C	10.45	11	11.55	5	20	1	141	0.09	8
BZT52C12S	2D	11.4	12	12.6	5	25	1	141	0.09	8
BZT52C13S	2E	12.35	13	13.65	5	30	1	160	0.09	8
BZT52C15S	2F	14.25	15	15.75	5	30	1	188	0.045	10.5
BZT52C16S	2H	15.2	16	16.8	5	40	1	188	0.045	11.2
BZT52C18S	2J	17.1	18	18.9	5	45	1	212	0.045	12.6
BZT52C20S	2K	19	20	21	5	55	1	212	0.045	14
BZT52C22S	2M	20.9	22	23.1	5	55	1	235	0.045	15.4
BZT52C24S	2N	22.8	24	25.2	5	70	1	235	0.045	16.8
BZT52C27S	2P	25.65	27	28.35	2	80	0.5	282	0.045	18.9
BZT52C30S	2R	28.5	30	31.5	2	80	0.5	282	0.045	21
BZT52C33S	2X	31.35	33	34.65	2	80	0.5	306	0.045	23
BZT52C36S	2Y	34.2	36	37.8	2	90	0.5	329	0.045	25.2
BZT52C39S	2Z	37.05	39	40.95	2	130	0.5	329	0.045	27.3
BZT52C43S	3A	40.85	43	45.15	2	150	0.5	353	0.045	30.1
BZT52C47S	3B	44.65	47	49.35	2	170	0.5	353	0.045	33
BZT52C51S	3C	48.45	51	53.55	2	180	0.5	376	0.045	35.7
BZT52C56S	3D	53.2	56	58.8	2	200	0.5	400	0.045	39.2
BZT52C62S	3E	58.9	62	65.1	2	215	0.5	423	0.045	43.4
BZT52C68S	3F	64.6	68	71.4	2	240	0.5	447	0.045	47.6
BZT52C75S	3H	71.25	75	78.75	2	255	0.5	470	0.045	52.5

### Ratings and Characteristic Curves

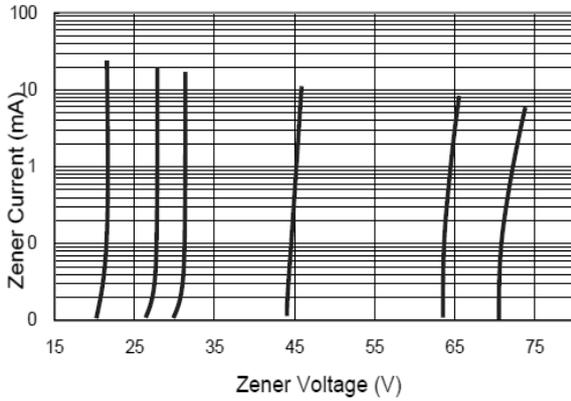
**FIG 1 Typical Forward Characteristics**



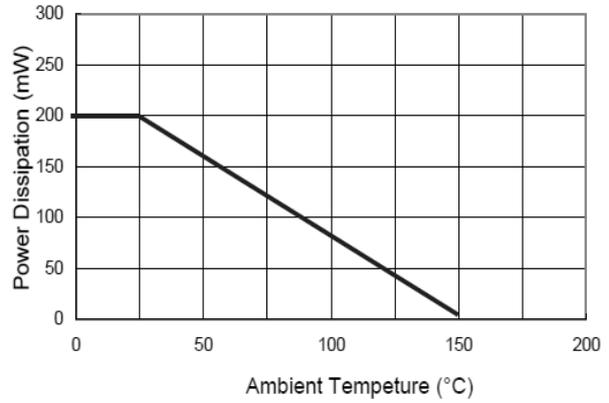
**FIG 2 Zener Breakdown Characteristics**



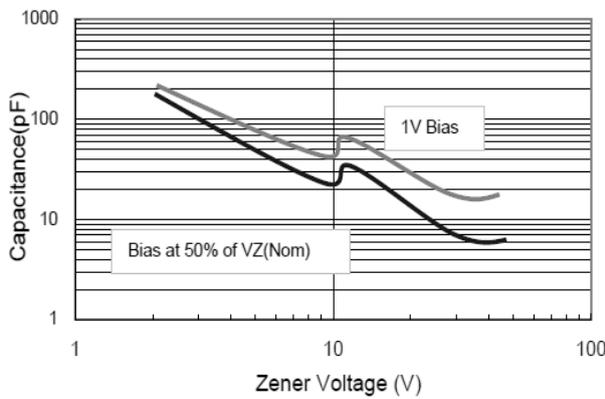
**FIG 3 Zener Breakdown Characteristics**



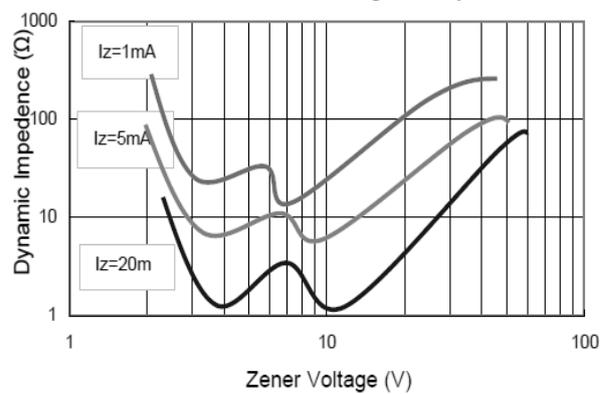
**FIG 4 Admissible Power Dissipation Curve**



**FIG 5 Typical Capacitance**



**FIG 6 Effect of Zener Voltage on Impedence**





## BZT52C2V4S THRU BZT52C75S

*Surface Mount Zener Diodes*

### Ordering Information

Part No.	Package	Packing Code	Packing
BZT52C2V4S THRU BZT52C75S	SOD-323	R30	3000pcs/Reel

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