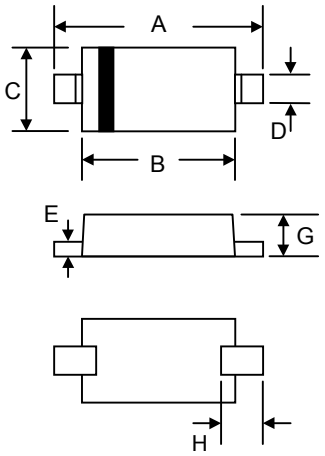
BZT52C2V4S - BZT52C75S

SURFACE MOUNT ZENER DIODE

Features

- Planar Die Construction
- Ultra-Small Surface Mount Package
- Ideally suited for Automated Assembly Processes

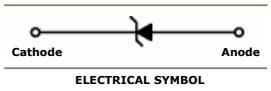


SOD-323		
Dim	Min	Max
A	2.30	2.70
B	1.75	1.95
C	1.15	1.35
D	0.25	0.35
E	0.05	0.15
G	0.70	0.95
H	0.30	—
All Dimensions in mm		

Mechanical Data

- Case: SOD-323, Plastic
- Case material - UL Flammability Rating Classification 94V-0
- Moisture sensitivity: Level 1 per J-STD-020A
- Terminals: Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Marking: See Below
- Weight: 0.004 grams (approx.)

RoHS Compliant



ELECTRICAL SYMBOL

Maximum Ratings @T_A=25°C unless otherwise specified

Type Number	Symbol	Value	Units
Forward Voltage @ IF = 10mA	VF	1.0	V
Power Dissipation (Note 1)	Pd	200	mW
Thermal Resistance Junction to Ambient Air (Note 1)	$R_{\theta JA}$	625	^{O}C /W
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to + 150	^{O}C

Notes: 1. Valid provided the device terminals are kept at ambient temperature.
2. Short duration test pulse used in minimize self-heating effect.
3. f = 1KHz.

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Electrical Characteristics @T_A=25°C unless otherwise specified

Part Number	Nominal Zener Voltage			Max. Zener Impedance				Max Reverse Leakage Current		Marking Code	Package
	V_Z @ I_{ZT}			Z_{ZT} @ I_{ZT}		Z_{ZK} @ I_{ZK}		I_R @ V_R			
	Nom. V	Min. V	Max. V	Ω	mA	Ω	mA	μA	V		
BZT52-C2V4S	2.4	2.28	2.52	85	5.0	600	1.00	100	1.0	W1	SOD-323
BZT52-C2V7S	2.7	2.57	2.84	83	5.0	600	1.00	75	1.0	W2	SOD-323
BZT52-C3S	3.0	2.85	3.15	95	5.0	600	1.00	50	1.0	W3	SOD-323
BZT52-C3V3S	3.3	3.14	3.47	95	5.0	600	1.00	25	1.0	W4	SOD-323
BZT52-C3V6S	3.6	3.42	3.78	95	5.0	600	1.00	15	1.0	W5	SOD-323
BZT52-C3V9S	3.9	3.71	4.10	95	5.0	600	1.00	10	1.0	W6	SOD-323
BZT52-C4V3S	4.3	4.09	4.52	95	5.0	600	1.00	5.0	1.0	W7	SOD-323
BZT52-C4V7S	4.7	4.47	4.94	78	5.0	500	1.00	5.0	2.0	W8	SOD-323
BZT52-C5V1S	5.1	4.85	5.36	60	5.0	480	1.00	0.1	0.8	W9	SOD-323
BZT52-C5V6S	5.6	5.32	5.88	40	5.0	400	1.00	0.1	1.0	WA	SOD-323
BZT52-C6V2S	6.2	5.89	6.51	10	5.0	150	1.00	0.1	2.0	WB	SOD-323
BZT52-C6V8S	6.8	6.46	7.14	8	5.0	80	1.00	0.1	3.0	WC	SOD-323
BZT52-C7V5S	7.5	7.13	7.88	7	5.0	80	1.00	0.1	5.0	WD	SOD-323
BZT52-C8V2S	8.2	7.79	8.61	7	5.0	80	1.00	0.1	6.0	WE	SOD-323
BZT52-C9V1S	9.1	8.65	9.56	10	5.0	100	1.00	0.1	7.0	WF	SOD-323
BZT52-C10S	10	9.50	10.50	15	5.0	150	1.00	0.1	7.5	WG	SOD-323
BZT52-C11S	11	10.45	11.55	20	5.0	150	1.00	0.1	8.5	WH	SOD-323
BZT52-C12S	12	11.40	12.60	20	5.0	150	1.00	0.1	9.0	WI	SOD-323
BZT52-C13S	13	12.35	13.65	25	5.0	170	1.00	0.1	10.0	WK	SOD-323
BZT52-C14S	14	13.30	14.70	25	5.0	170	1.00	0.1	10.5	WJ	SOD-323
BZT52-C15S	15	14.25	15.75	30	5.0	200	1.00	0.1	11.0	WL	SOD-323
BZT52-C16S	16	15.20	16.80	40	5.0	200	1.00	0.1	12.0	WM	SOD-323
BZT52-C17S	17	16.15	17.85	40	5.0	200	1.00	0.1	13.0	17C	SOD-323
BZT52-C18S	18	17.10	18.90	50	5.0	225	1.00	0.1	14.0	WN	SOD-323
BZT52-C20S	20	19.00	21.00	50	5.0	225	1.00	0.1	15.0	WO	SOD-323
BZT52-C22S	22	20.90	23.10	55	5.0	250	1.00	0.1	17.0	WP	SOD-323
BZT52-C24S	24	22.80	25.20	80	5.0	250	1.00	0.1	18.0	WR	SOD-323
BZT52-C27S	27	25.65	28.35	80	5.0	300	1.00	0.1	20.0	WS	SOD-323
BZT52-C28S	28	26.60	29.40	80	5.0	300	1.00	0.1	22.0	28C	SOD-323
BZT52-C30S	30	28.50	31.50	80	5.0	300	1.00	0.1	22.5	WT	SOD-323
BZT52-C33S	33	31.35	34.65	80	5.0	325	1.00	0.1	25.0	WU	SOD-323
BZT52-C36S	36	34.20	37.80	90	5.0	350	1.00	0.1	27.0	WW	SOD-323
BZT52-C39S	39	37.05	40.95	90	5.0	350	1.00	0.1	29.0	WX	SOD-323
BZT52-C43S	43	40.85	45.15	100	5.0	700	1.00	0.1	32.0	WY	SOD-323
BZT52-C47S	47	44.65	49.35	100	5.0	750	1.00	0.1	35.0	WZ	SOD-323
BZT52-C51S	51	48.45	53.55	100	5.0	750	1.00	0.1	38.0	XA	SOD-323
BZT52-C56S	56	53.20	58.80	135	5.0	1000	1.00	0.1	42	X2	SOD-323
BZT52-C62S	62	58.90	65.10	150	5.0	1000	1.00	0.1	46	X3	SOD-323
BZT52-C68S	68	64.60	71.40	200	5.0	1000	1.00	0.1	51	X4	SOD-323
BZT52-C75S	75	71.25	78.75	250	5.0	1000	1.00	0.1	56	X5	SOD-323

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RATINGS AND CHARACTERISTIC CURVES

FIG.1- POWER DERATING CURVE

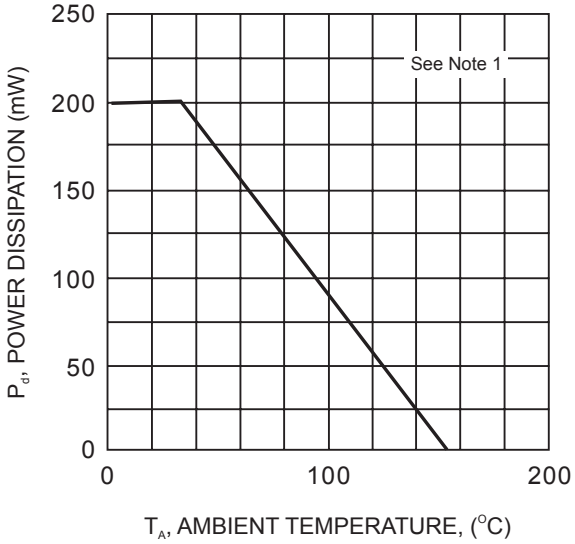

FIG.2- ZENER BREAKDOWN CHARACTERISTICS

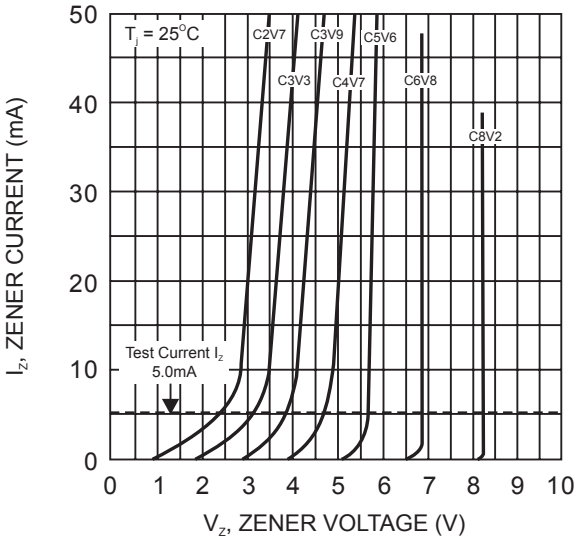

FIG.3- ZENER BREAKDOWN CHARACTERISTICS

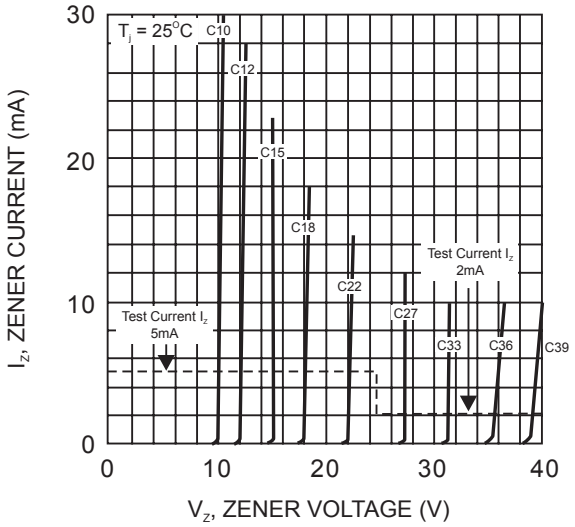

FIG.4- JUNCTION CAPACITANCE VS NOMINAL ZENER VOLTAGE

