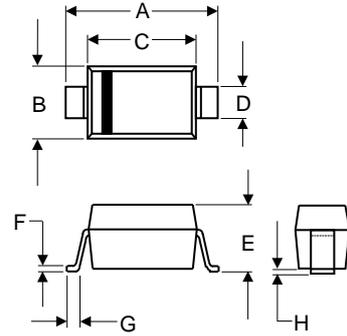


Features

- * 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_{tot}	200	mW
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{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	$R_{\theta JA}$	625	$^\circ\text{C}/\text{W}$
Forward Voltage at $I_F = 10 \text{ mA}$	V_F	1.0	V



BZT52B2V4S THRU BZT52B75S

Surface Mount Zener Diodes

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

Part Number	Device Marking	V _Z @ I _{ZT} (Volt)			I _{ZT} (mA)	Z _{ZT} @ I _{ZT} (Ω) Max	I _{ZK} (mA)	Z _{ZK} @ I _{ZK} (Ω) Max	I _R @ V _R (uA) Max	V _R (V)
		Min	Nom	Max						
BZT52B2V4S	0Z	2.35	2.40	2.45	5	100	1	564	45	1
BZT52B2V7S	1Z	2.65	2.70	2.75	5	100	1	564	18	1
BZT52B3V0S	2Z	2.94	3.00	3.06	5	100	1	564	9	1
BZT52B3V3S	3Z	3.23	3.30	3.37	5	95	1	564	4.5	1
BZT52B3V6S	4Z	3.53	3.60	3.67	5	90	1	564	4.5	1
BZT52B3V9S	5Z	3.82	3.90	3.98	5	90	1	564	2.7	1
BZT52B4V3S	6Z	4.21	4.30	4.39	5	90	1	564	2.7	1
BZT52B4V7S	7Z	4.61	4.70	4.79	5	80	1	470	2.7	2.0
BZT52B5V1S	8Z	5.00	5.10	5.20	5	60	1	451	1.8	2.0
BZT52B5V6S	9Z	5.49	5.60	5.71	5	40	1	376	0.9	2.0
BZT52B6V2S	AZ	6.08	6.20	6.32	5	10	1	141	2.7	4.0
BZT52B6V8S	BZ	6.66	6.80	6.94	5	15	1	75	1.8	4.0
BZT52B7V5S	CZ	7.35	7.50	7.65	5	15	1	75	0.9	5.0
BZT52B8V2S	DZ	8.04	8.20	8.36	5	15	1	75	0.63	5.0
BZT52B9V1S	EZ	8.92	9.10	9.28	5	15	1	94	0.45	6.0
BZT52B10S	FZ	9.80	10.00	10.20	5	20	1	141	0.18	7.0
BZT52B11S	GZ	10.78	11.00	11.22	5	20	1	141	0.09	8.0
BZT52B12S	HZ	11.76	12.00	12.24	5	25	1	141	0.09	8.0
BZT52B13S	JZ	12.74	13.00	13.26	5	30	1	160	0.09	8.0
BZT52B15S	KZ	14.70	15.00	15.30	5	30	1	188	0.045	10.5
BZT52B16S	LZ	15.68	16.00	16.32	5	40	1	188	0.045	11.2
BZT52B18S	MZ	17.64	18.00	18.36	5	45	1	212	0.045	12.6
BZT52B20S	NZ	19.60	20.00	20.40	5	55	1	212	0.045	14.0
BZT52B22S	PZ	21.56	22.00	22.44	5	55	1	235	0.045	15.4
BZT52B24S	RZ	23.52	24.00	24.48	5	70	1	235	0.045	16.8
BZT52B27S	SZ	26.46	27.00	27.54	2	80	0.5	282	0.045	18.9
BZT52B30S	TZ	29.40	30.00	30.60	2	80	0.5	282	0.045	21.0
BZT52B33S	UZ	32.34	33.00	33.66	2	80	0.5	306	0.045	23.0
BZT52B36S	VZ	35.28	36.00	36.72	2	90	0.5	329	0.045	25.2
BZT52B39S	WZ	38.22	39.00	39.78	2	130	0.5	329	0.045	27.3
BZT52B43S	XZ	42.14	43.00	43.86	2	150	0.5	353	0.045	30.1
BZT52B47S	YZ	46.06	47.00	47.94	2	170	0.5	353	0.045	33.0
BZT52B51S	—Z	49.98	51.00	52.02	2	180	0.5	376	0.045	35.7
BZT52B56S	=Z	54.88	56.00	57.12	2	200	0.5	400	0.045	39.2
BZT52B62S	≡Z	60.76	62.00	63.24	2	215	0.5	423	0.045	43.4
BZT52B68S	>Z	66.64	68.00	69.36	2	240	0.5	447	0.045	47.6
BZT52B75S	<Z	73.50	75.00	76.50	2	255	0.5	470	0.045	52.5

Notes: 1. The Zener Voltage (V_Z) is tested under pulse condition of 10ms.

2. The device numbers listed have a standard tolerance on the nominal zener voltage of ±2%.

3. The Zener impedance is derived from the 60-cycle ac voltage, which results when an ac current having an RMS value equal to 10% of the dc zener current(I_{ZT} or I_{ZK}) is superimposed to I_{ZT} or I_{ZK}.

Ratings and Characteristic Curves

Fig. 1 Typical Forward Characteristics

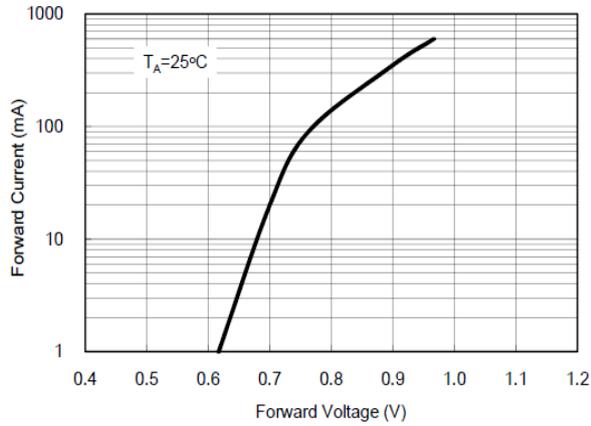


Fig. 2 Zener Breakdown Characteristics

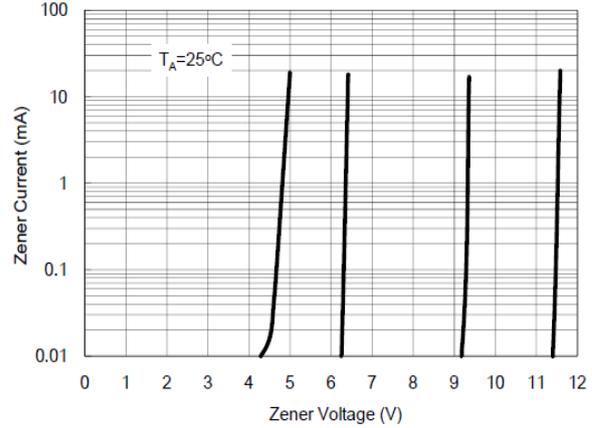


Fig. 3 Zener Breakdown Characteristics

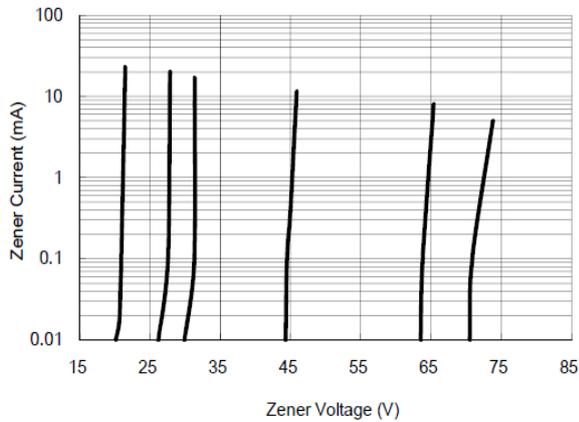


Fig. 4 Admissible Power Dissipation Curve

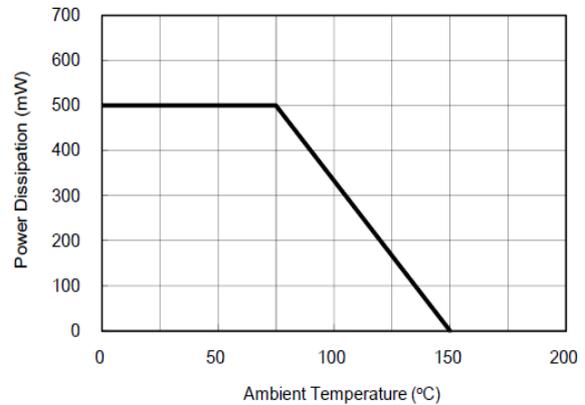


Fig. 5 Typical Capacitance

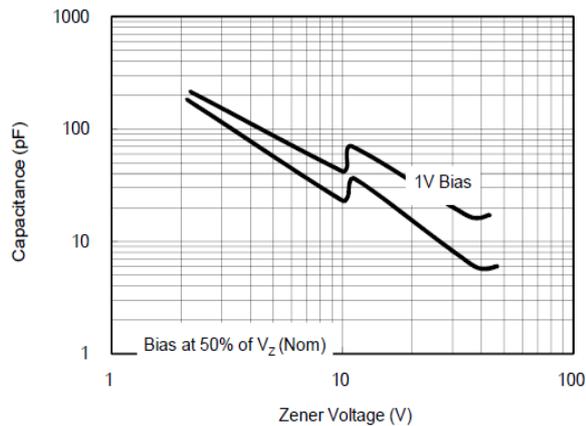
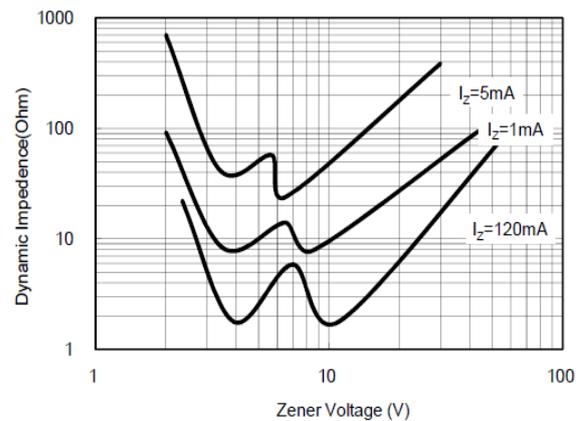


Fig. 6 Effect of Zener Voltage on Impedance





BZT52B2V4S THRU BZT52B75S

Surface Mount Zener Diodes

Ordering Information

Part No.	Package	Packing Code	Packing
BZT52B2V4S THRU BZT52B75S	SOD-323	R30	3000pcs/Reel

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