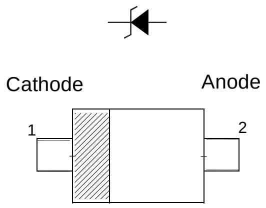
BZT52C…W SILICON PLANAR ZENER DIODES



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Features

- Ideally suited for automated assembly processes
- Total power dissipation: max. 500 mW

Absolute Maximum Ratings (T_a = 25 °C)

Parameter	Symbol	Value	Unit
Power Dissipation	P_{tot}	500	mW
Junction Temperature	T_J	150	°C
Storage Temperature Range	T_{Stg}	- 65 to + 150	°C

Characteristics at T_a = 25 °C

Parameter	Symbol	Max.	Unit
Thermal Resistance Junction to Ambient Air	R_{thA}	340	°C/W
Forward Voltage at I_F = 10 mA	V_F	0.9	V

Characteristics at $T_a = 25\ ^\circ C$

Type	Marking Code	Zener Voltage Range 1)			Dynamic Impedance			Reverse Leakage Current	
		V_{znom} V	I_{ZT} for	V_{ZT}	Z_{ZT}	Z_{ZK}	at I_{ZK}	I_R	at V_R
			mA	V	Ω (Max.)	Ω (Max.)	mA	µA (Max.)	V
BZT52C2V4W	MH	2.4	5	2.2...2.6	100	600	1	50	1
BZT52C2V7W	MJ	2.7	5	2.5...2.9	100	600	1	20	1
BZT52C3V0W	MK	3.0	5	2.8...3.2	95	600	1	10	1
BZT52C3V3W	MM	3.3	5	3.1...3.5	95	600	1	5	1
BZT52C3V6W	MN	3.6	5	3.4...3.8	90	600	1	5	1
BZT52C3V9W	MP	3.9	5	3.7...4.1	90	600	1	3	1
BZT52C4V3W	MR	4.3	5	4...4.6	90	600	1	3	1
BZT52C4V7W	MX	4.7	5	4.4...5	80	500	1	3	2
BZT52C5V1W	MY	5.1	5	4.8...5.4	60	480	1	2	2
BZT52C5V6W	MZ	5.6	5	5.2...6	40	400	1	1	2
BZT52C6V2W	NA	6.2	5	5.8...6.6	10	150	1	3	4
BZT52C6V8W	NB	6.8	5	6.4...7.2	15	80	1	2	4
BZT52C7V5W	NC	7.5	5	7...7.9	15	80	1	1	5
BZT52C8V2W	ND	8.2	5	7.7...8.7	15	80	1	0.7	5
BZT52C9V1W	NE	9.1	5	8.5...9.6	15	100	1	0.5	6
BZT52C10W	NF	10	5	9.4...10.6	20	150	1	0.2	7
BZT52C11W	NH	11	5	10.4...11.6	20	150	1	0.1	8
BZT52C12W	NJ	12	5	11.4...12.7	25	150	1	0.1	8
BZT52C13W	NK	13	5	12.4...14.1	30	170	1	0.1	8
BZT52C15W	NM	15	5	13.8...15.6	30	200	1	0.1	10.5
BZT52C16W	NN	16	5	15.3...17.1	40	200	1	0.1	11.2
BZT52C18W	NP	18	5	16.8...19.1	45	225	1	0.1	12.6
BZT52C20W	NR	20	5	18.8...21.2	55	225	1	0.1	14
BZT52C22W	NX	22	5	20.8...23.3	55	250	1	0.1	15.4
BZT52C24W	NY	24	5	22.8...25.6	70	250	1	0.1	16.8
BZT52C27W	NZ	27	2	25.1...28.9	80	300	0.5	0.1	18.9
BZT52C30W	PA	30	2	28...32	80	300	0.5	0.1	21
BZT52C33W	PB	33	2	31...35	80	325	0.5	0.1	23.1
BZT52C36W	PC	36	2	34...38	90	350	0.5	0.1	25.2
BZT52C39W	PD	39	2	37...41	130	350	0.5	0.1	27.3
BZT52C43W	WU	43	2	40...46	130	250	0.5	0.1	33
BZT52C47W	WV	47	2	44...50	150	300	0.5	0.1	36
BZT52C51W	WW	51	2	48...54	170	300	0.5	0.1	39
BZT52C56W	XW	56	2	52...60	170	325	0.5	0.1	43
BZT52C62W	6E	62	2	58...66	190	350	0.5	0.1	47
BZT52C68W	6F	68	2	64...72	190	350	0.5	0.1	52
BZT52C75W	6H	75	2	70...79	220	350	0.5	0.1	57

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1) V_Z is tested with pulses (20 ms).

TA=25 ℃ unless otherwise noted

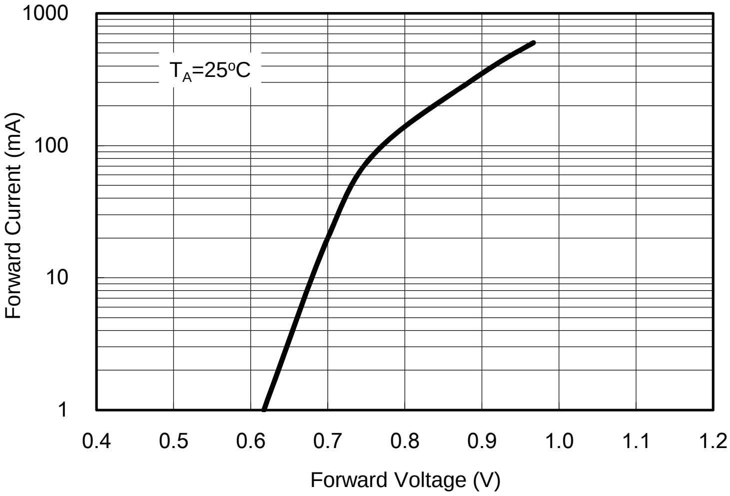

Fig. 1 Typical Forward Characteristics

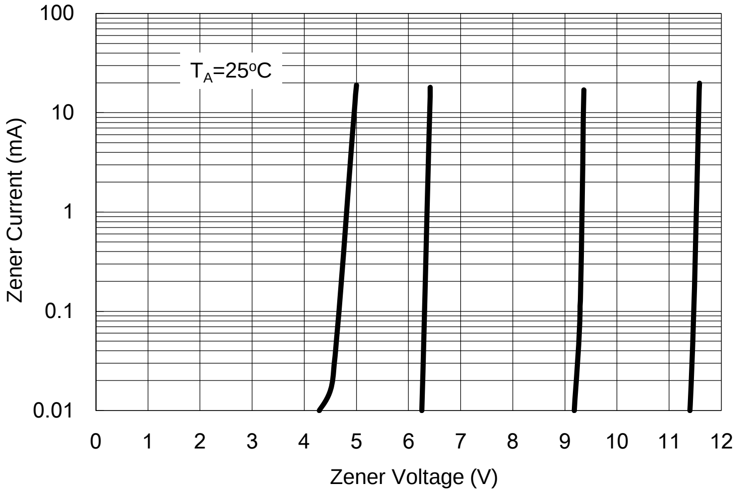

Fig. 2 Zener Breakdown Characteristics

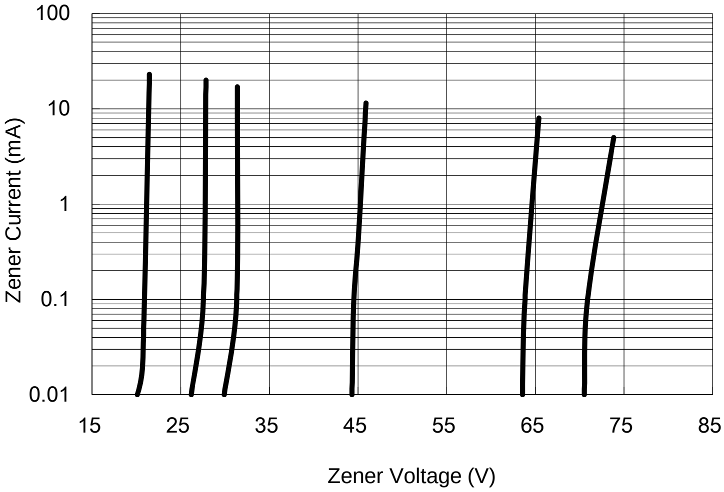

Fig. 3 Zener Breakdown Characteristics

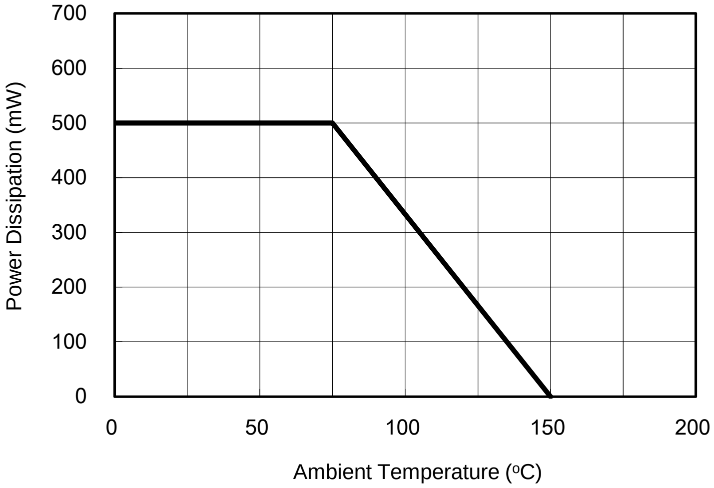

Fig. 4 Power Dissipation Curve

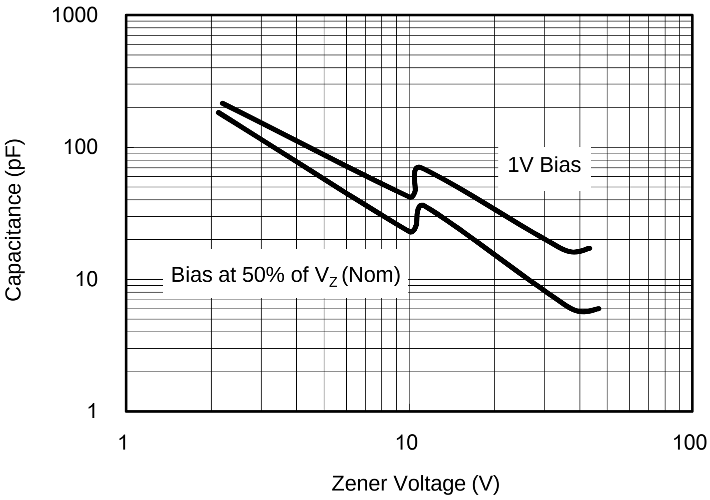

Fig. 5 Typical Capacitance

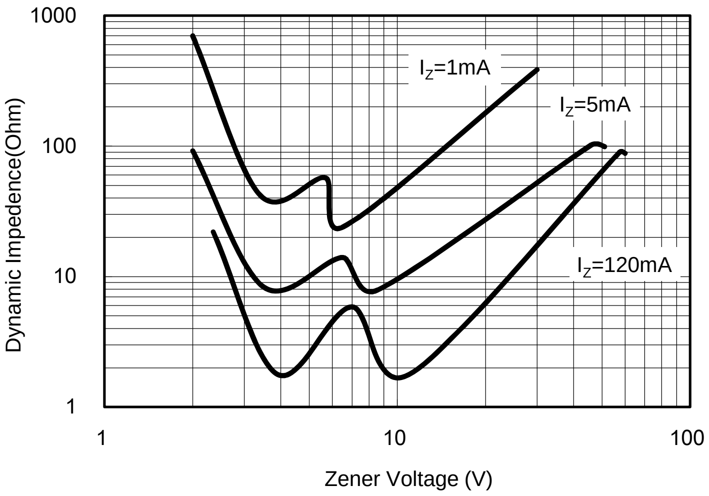

Fig. 6 Effect of Zener Voltage on Impedence

PACKAGE OUTLINE

Plastic surface mounted package; 2 leads

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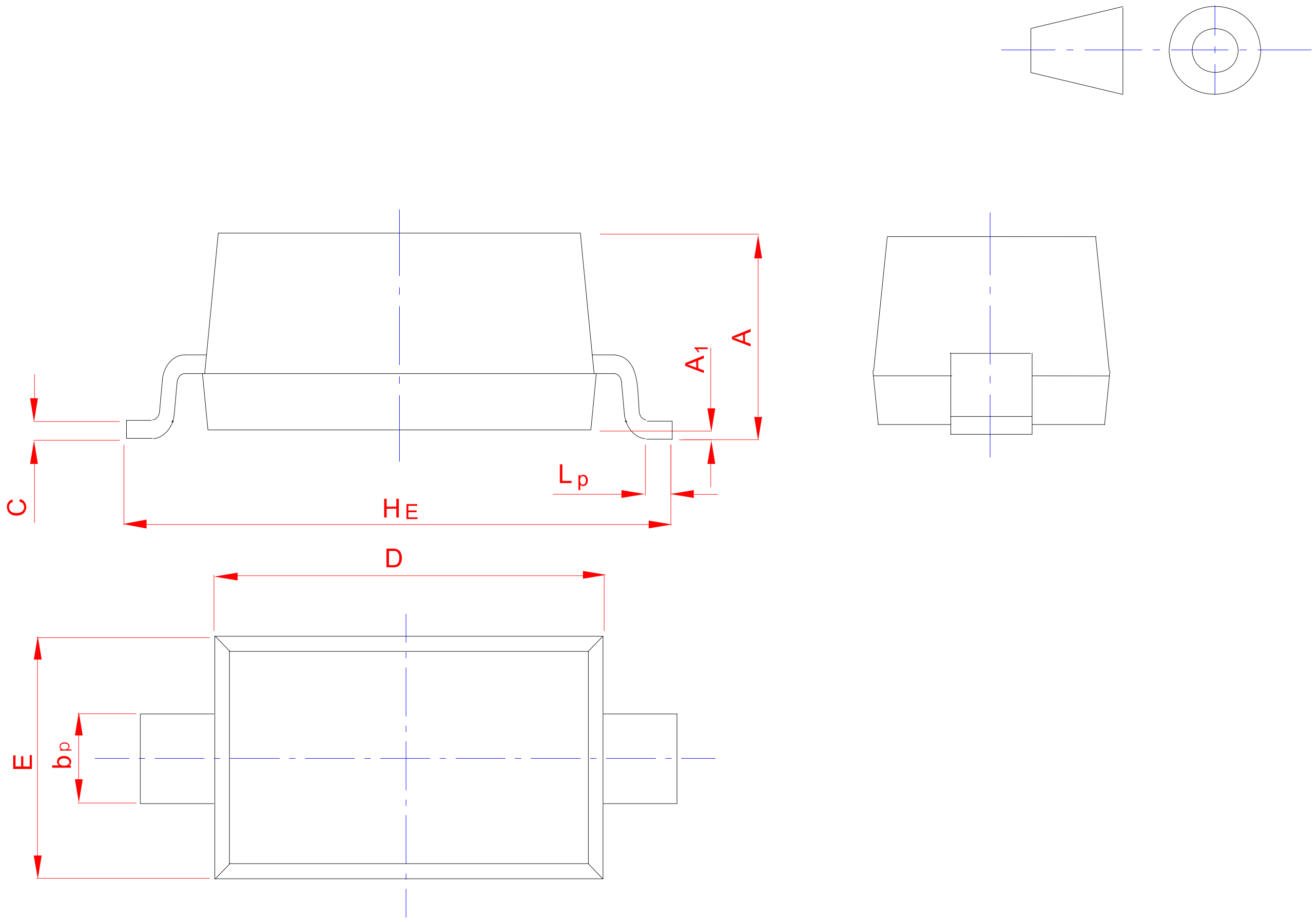

UNIT	A	b_p	C	**D**	E	H_E	A_1	L_p
mm	1.20 0.90	0.60 0.50	0.135 0.100	2.75 2.55	1.65 1.55	3.85 3.55	0.10 0.01	0.50 0.20