

Features

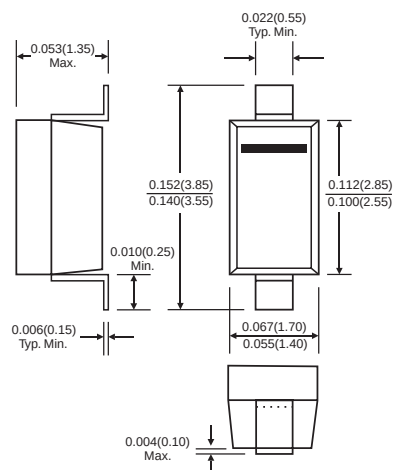
- Planar die construction.
- 500mW power dissipation on ceramic PCB.
- General purpose, medium current.
- Ideally suited for automated assembly processes.

Applications

- Zener diode.
- Ultra-small surface mount package.

Ordering Information

SOD-123



Dimensions in inches and (millimeters)

Type No.	Marking	Package Code
BZT52C2V4-BZT52C75	See table 2	SOD-123

MAXIMUM RATING @ Ta=25°C unless otherwise specified

Characteristic	Symbol	Value	Unit
Forward Voltage @ I _F =10mA	V _F	0.9	V
Power Dissipation	P _d	500	mW
Thermal resistance, junction to ambient air	R _{θJA}	305	°C/W
Junction temperature	T _J	150	°C
Storage temperature range	T _{stg}	-65-150	°C

Notes: 1. Device mounted on ceramic PCB; 7.6mm x 9.4mm x 0.87mm with pad areas 25mm²

2. Short duration test pulse used to minimize self-heating effect.

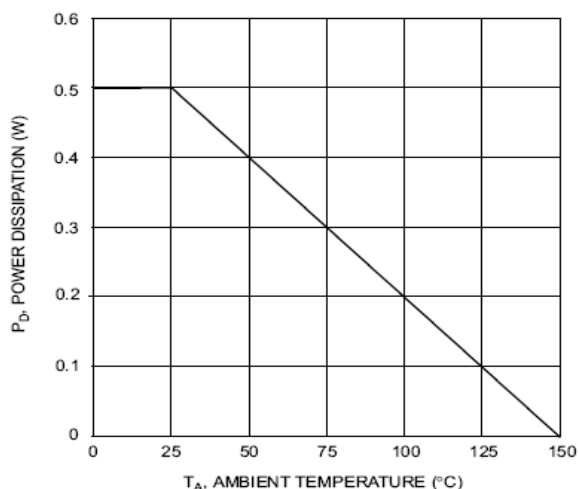
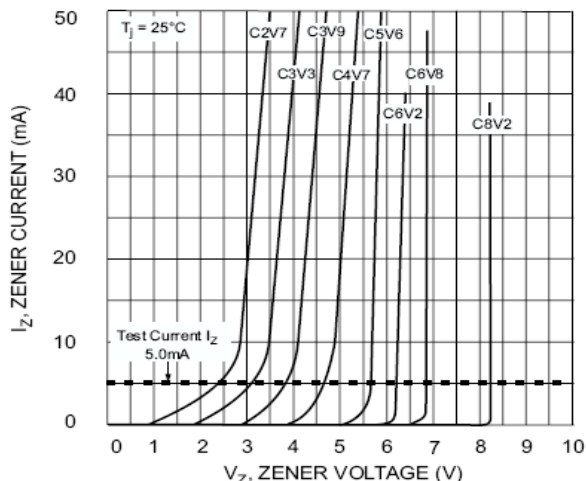
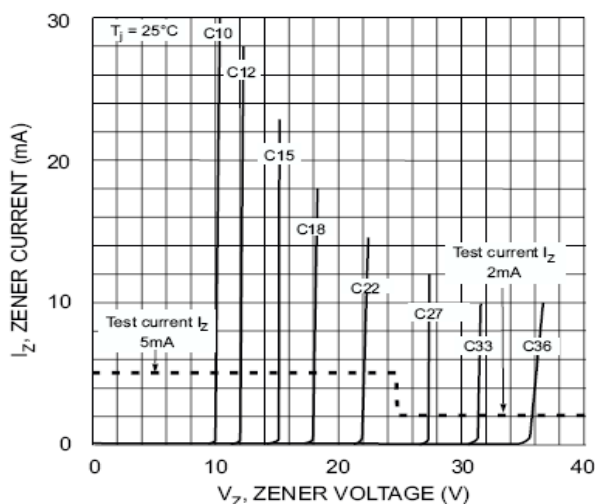
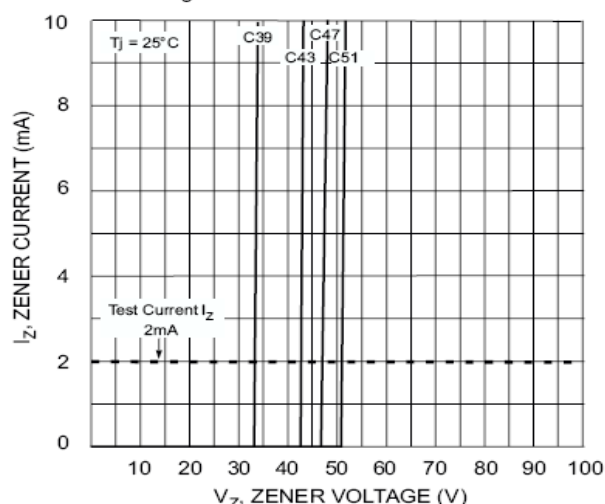
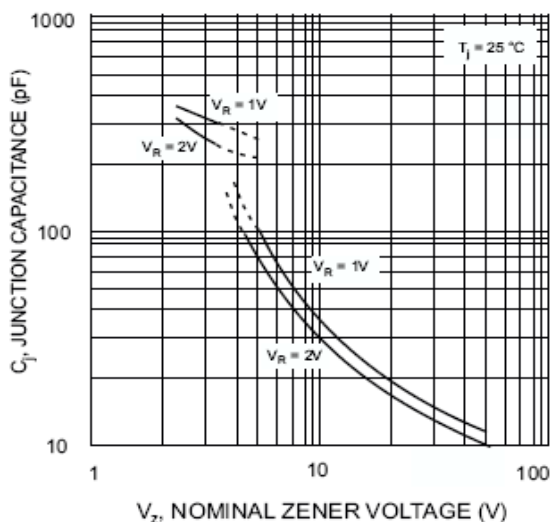
3. When provided, otherwise, parts are provided with date code only, and type number identifications appears on reel only.

4. f = 1KHz



ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Type Number	Marking Code	Zener Voltage Range				Maximum Zener Impedance			Maximum Reverse Current		Typical Temperature Coefficient@ I _{ZTC} mV/°C		Test Current I _{ZTC}
		V _Z @I _{ZT}			I _{ZT}	Z _{ZT} @I _{ZT}	Z _{ZK} @I _{ZK}	I _{ZK}	I _R	@V _R	Min	Max	
		Nom(V)	Min(V)	Max(V)	mA	Ω		mA	μA	V			mA
BZT52C2V0	WY	2.0	1.91	2.09	5	100	600	1.0	150	1	-3.5	0	5
BZT52C2V4	WX	2.4	2.28	2.52	5	100	600	1.0	50	1.0	-3.5	0	5
BZT52C2V7	W1	2.7	2.57	2.84	5	100	600	1.0	20	1.0	-3.5	0	5
BZT52C3V0	W2	3.0	2.85	3.15	5	95	600	1.0	10	1.0	-3.5	0	5
BZT52C3V3	W3	3.3	3.14	3.47	5	95	600	1.0	5.0	1.0	-3.5	0	5
BZT52C3V6	W4	3.6	3.42	3.78	5	90	600	1.0	5.0	1.0	-3.5	0	5
BZT52C3V9	W5	3.9	3.71	4.10	5	90	600	1.0	3.0	1.0	-3.5	0	5
BZT52C4V3	W6	4.3	4.09	4.52	5	90	600	1.0	3.0	1.0	-3.5	0	5
BZT52C4V7	W7	4.7	4.47	4.94	5	80	500	1.0	3.0	2.0	-3.5	0	5
BZT52C5V1	W8	5.1	4.85	5.36	5	60	480	1.0	2.0	2.0	-2.7	1.2	5
BZT52C5V6	W9	5.6	5.32	5.88	5	40	400	1.0	1.0	2.0	-2	2.5	5
BZT52C6V2	WA	6.2	5.89	6.51	5	10	150	1.0	3.0	4.0	0.4	3.7	5
BZT52C6V8	WB	6.8	6.46	7.14	5	15	80	1.0	2.0	4.0	1.2	4.5	5
BZT52C7V5	WC	7.5	7.13	7.88	5	15	80	1.0	1.0	5.0	2.5	5.3	5
BZT52C8V2	WD	8.2	7.79	8.61	5	15	80	1.0	0.7	5.0	3.2	6.2	5
BZT52C9V1	WE	9.1	8.65	9.56	5	15	100	1.0	0.5	6.0	3.8	7.0	5
BZT52C10	WF	10	9.50	10.50	5	20	150	1.0	0.2	7.0	4.5	8.0	5
BZT52C11	WG	11	10.45	11.55	5	20	150	1.0	0.1	8.0	5.4	9.0	5
BZT52C12	WH	12	11.40	12.60	5	25	150	1.0	0.1	8.0	6.0	10.0	5
BZT52C13	WI	13	12.35	13.65	5	30	170	1.0	0.1	8.0	7.0	11.0	5
BZT52C15	WJ	15	14.25	15.75	5	30	200	1.0	0.1	10.5	9.2	13.0	5
BZT52C16	WK	16	15.20	16.80	5	40	200	1.0	0.1	11.2	10.4	14.0	5
BZT52C18	WL	18	17.10	18.90	5	45	225	1.0	0.1	12.6	12.4	16.0	5
BZT52C20	WM	20	19.00	21.00	5	55	225	1.0	0.1	14.0	14.4	18.0	5
BZT52C22	WN	22	20.90	23.10	5	55	250	1.0	0.1	15.4	16.4	20.0	5
BZT52C24	WO	24	22.80	25.20	5	70	250	1.0	0.1	16.8	18.4	22.0	5
BZT52C27	WP	27	25.65	28.35	2	80	300	0.5	0.1	18.9	21.4	25.3	2
BZT52C30	WQ	30	28.50	31.50	2	80	300	0.5	0.1	21.0	24.4	29.4	2
BZT52C33	WR	33	31.35	34.65	2	80	325	0.5	0.1	23.1	27.4	33.4	2
BZT52C36	WS	36	34.20	37.80	2	90	350	0.5	0.1	25.2	30.4	37.4	2
BZT52C39	WT	39	37.05	40.95	2	130	350	0.5	0.1	27.3	33.4	41.2	2
BZT52C43	WU	43	40.85	45.15	2	100	350	0.5	0.1	32	37.6	46.6	2
BZT52C47	WV	47	44.65	49.35	2	100	375	0.5	0.1	35	42.0	51.8	2
BZT52C51	WW	51	48.45	53.55	2	125	375	0.5	0.1	38	46.6	57.2	2
BZT52C56	XW	56	53.20	58.80	2	135	400	0.5	0.1	39.2	52.2	63.8	2
BZT52C62	6E	62	58.90	65.10	2	200	425	0.5	0.1	43.4	58.8	71.6	2
BZT52C68	6F	68	64.60	71.40	2	250	450	0.5	0.1	47.6	65.6	79.8	2
BZT52C75	6H	75	71.25	78.75	2	300	475	0.5	0.1	52.5	73.4	88.6	2

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Fig. 1 Power Dissipation vs Ambient Temperature

Fig. 2 Zener Breakdown Characteristics

Fig. 3 Zener Breakdown Characteristics

Fig. 4 Zener Breakdown Characteristics

Fig. 5 Junction Capacitance vs Nominal Zener Voltage

PACKAGE	SPQ/PCS	CARTON SPQ/PCS	CARTON SIZE/CM	CARTON GW/KG	CARTON NW/KG
SOD-123	3000/REEL	90000	40X20X22	5.00	4.00