

RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

FEATURES

- Constant Voltage Control
- Wide Voltage Range Selection 2.4V~75V
- 350mW Power Dissipation on Ceramic PCB
- General Purpose, Medium Current
- Ideally Suited for Automated Assembly Processes
- Matte Tin (Sn) Lead finish

SOD-123

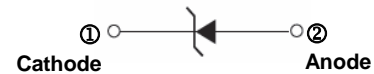


MECHANICAL DATA

- Case: SOD-123
- Polarity: Cathode Indicated by Polarity Band
- Mounting Position: Any

PACKAGE INFORMATION

Package	MPQ	Leader Size
SOD-123	3K	7 inch



ORDER INFORMATION

Part Number	Type
BZT52Bxxx-C	Lead (Pb)-free and Halogen-free

ABSOLUTE MAXIMUM RATINGS (T_A=25°C unless otherwise specified)

Parameter	Symbol	Rating	Unit
Power Dissipation ¹	P _D	350	mW
Junction and Storage Temperature Range	T _J , T _{STG}	150, -55~150	°C

ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$ unless otherwise specified)

Part Number	Marking Code	Zener Voltage ¹				Maximum Zener Impedance			Maximum Reverse Current	
		$V_Z@I_{ZT}$			I_{ZT}	$Z_{ZT}@I_{ZT}$	$Z_{ZK}@I_{ZK}$	I_{ZK}	I_R	V_R
		Nom.	Min.	Max.						
		V			mA	Ω	mA	μA	V	
BZT52B2V4-C	2WX	2.4	2.35	2.45	5	100	600	1	50	1
BZT52B2V7-C	2W1	2.7	2.65	2.75	5	100	600	1	20	1
BZT52B3V0-C	2W2	3	2.94	3.06	5	95	600	1	10	1
BZT52B3V3-C	2W3	3.3	3.23	3.37	5	95	600	1	5	1
BZT52B3V6-C	2W4	3.6	3.53	3.67	5	90	600	1	5	1
BZT52B3V9-C	2W5	3.9	3.82	3.98	5	90	600	1	3	1
BZT52B4V3-C	2W6	4.3	4.21	4.39	5	90	600	1	3	1
BZT52B4V7-C	2W7	4.7	4.61	4.79	5	80	500	1	3	2
BZT52B5V1-C	2W8	5.1	5	5.2	5	60	480	1	2	2
BZT52B5V6-C	2W9	5.6	5.49	5.71	5	40	400	1	1	2
BZT52B6V2-C	2WA	6.2	6.08	6.32	5	10	150	1	3	4
BZT52B6V8-C	2WB	6.8	6.66	6.94	5	15	80	1	2	4
BZT52B7V5-C	2WC	7.5	7.35	7.65	5	15	80	1	1	5
BZT52B8V2-C	2WD	8.2	8.04	8.36	5	15	80	1	0.7	5
BZT52B9V1-C	2WE	9.1	8.92	9.28	5	15	100	1	0.5	6
BZT52B10-C	2WF	10	9.8	10.2	5	20	150	1	0.2	7
BZT52B11-C	2WG	11	10.78	11.22	5	20	150	1	0.1	8
BZT52B12-C	2WH	12	11.76	12.24	5	25	150	1	0.1	8
BZT52B13-C	2WI	13	12.74	13.26	5	30	170	1	0.1	8
BZT52B14-C	2WY	14	13.72	14.28	5	25	110	1	0.1	10.5
BZT52B15-C	2WJ	15	14.7	15.3	5	30	200	1	0.1	10.5
BZT52B16-C	2WK	16	15.68	16.32	5	40	200	1	0.1	11.2
BZT52B18-C	2WL	18	17.64	18.36	5	45	225	1	0.1	12.6
BZT52B20-C	2WM	20	19.6	20.4	5	55	225	1	0.1	14
BZT52B22-C	2WN	22	21.56	22.44	5	55	250	1	0.1	15.4
BZT52B24-C	2WO	24	23.52	24.48	5	70	250	1	0.1	16.8
BZT52B27-C	2WP	27	26.46	27.54	2	80	300	0.5	0.1	18.9
BZT52B30-C	2WQ	30	29.4	30.6	2	80	300	0.5	0.1	21

ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$ unless otherwise specified)

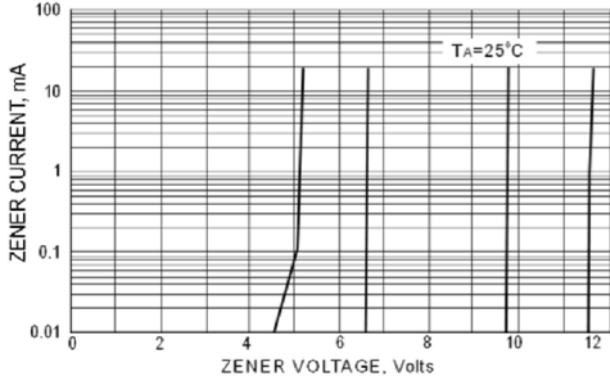
Part Number	Marking Code	Zener Voltage ¹				Maximum Zener Impedance			Maximum Reverse Current	
		$V_Z@I_{ZT}$			I_{ZT}	$Z_{ZT}@I_{ZT}$	$Z_{ZK}@I_{ZK}$	I_{ZK}	I_R	V_R
		Nom.	Min.	Max.						
		V			mA	Ω	mA	μA	V	
BZT52B33-C	2WR	33	32.34	33.66	2	80	325	0.5	0.1	23.1
BZT52B36-C	2WS	36	35.28	36.72	2	90	350	0.5	0.1	25.2
BZT52B39-C	2WT	39	38.22	39.78	2	130	350	0.5	0.1	27.3
BZT52B43-C	2WU	43	42.14	43.86	2	130	350	0.5	0.1	29.4
BZT52B47-C	2WV	47	45.83	48.17	2	170	1000	0.25	0.1	36
BZT52B51-C	2X1	51	49.73	52.27	2	180	1300	0.25	0.1	39
BZT52B56-C	2X2	56	54.6	57.4	2	200	1400	0.25	0.1	43
BZT52B62-C	2X3	62	60.45	63.55	2	225	1400	0.25	0.1	47
BZT52B68-C	2X4	68	66.30	69.70	2	240	1600	0.25	0.1	52
BZT52B75-C	2X5	75	73.13	76.87	2	265	1700	0.25	0.1	56

Note:

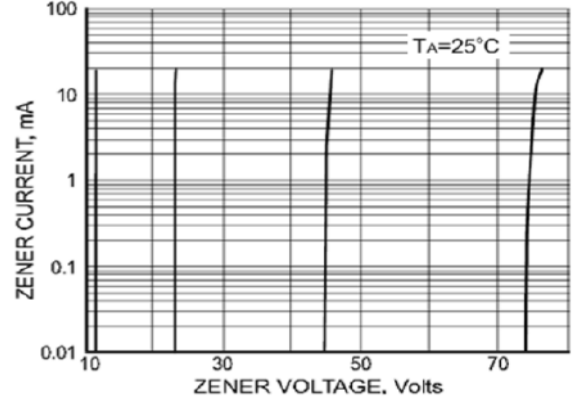
1. Pulse width=10ms.

CHARACTERISTIC CURVES

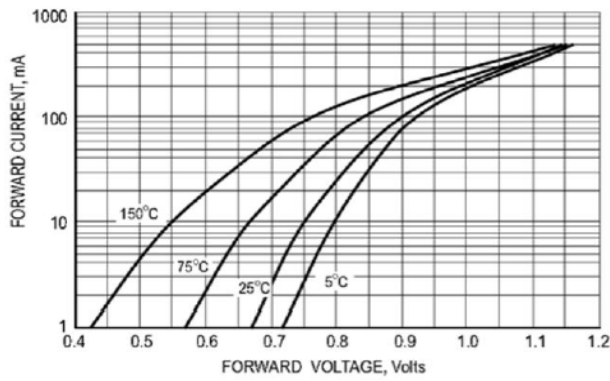
ZENER BREAKDOWN CHARACTERISTIC



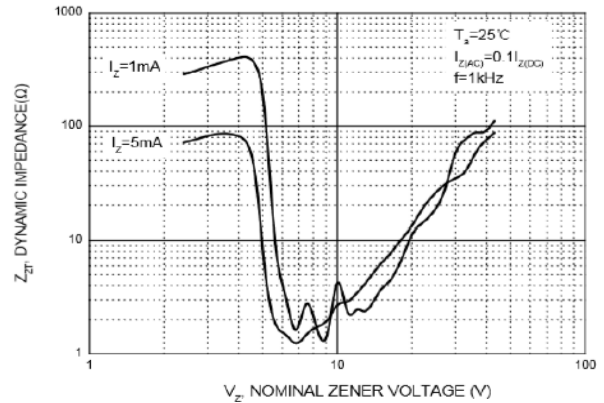
ZENER BREAKDOWN CHARACTERISTICS



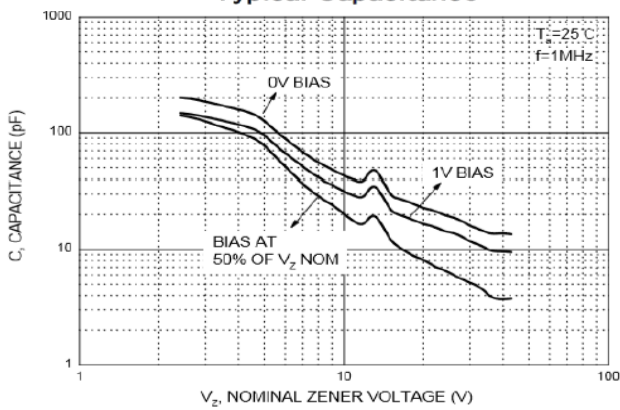
TYPICAL FORWARD VOLTAGE



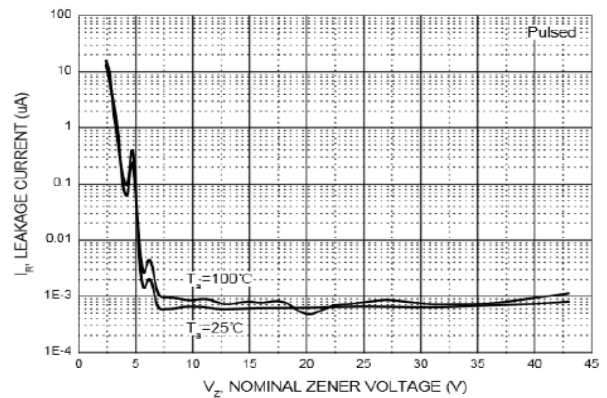
Effect of Zener Voltage on Zener Impedance



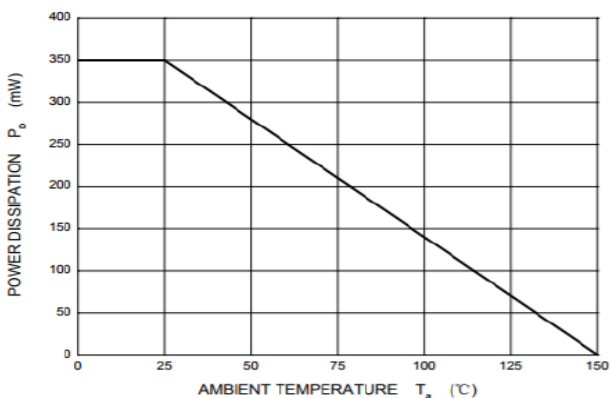
Typical Capacitance



Typical Leakage Current

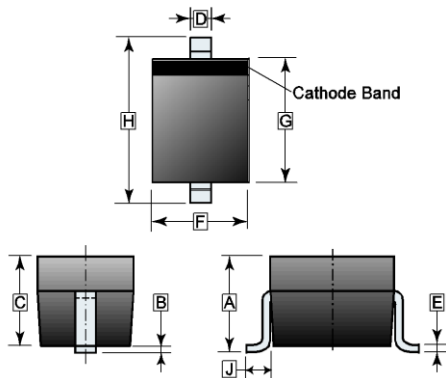


POWER DISSIPATION VS AMBIENT TEMP



PACKAGE OUTLINE DIMENSIONS

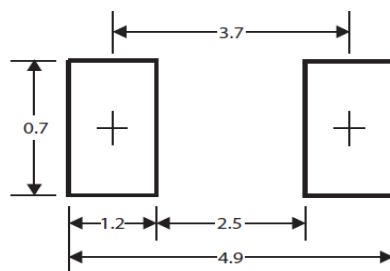
SOD-123



REF.	Millimeter	
	Min.	Max.
A	1.15 REF.	
B	0.10 REF.	
C	1.00	1.30
D	0.30	0.78
E	0.05	0.25
F	1.45	1.80
G	2.55	2.90
H	3.10	3.85
J	0.50 REF.	

MOUNTING PAD LAYOUT

SOD-123



*Dimensions in millimeters