

**FEATURES**

- Planar Die Construction
- General Purpose, Medium Current
- Ideally Suited for Automated Assembly Processes
- Available in Lead Free Version

**Maximum Ratings(Ta=25℃unless otherwise specified)**

Characteristic	Symbol	Value	Unit
Forward Voltage (Note 2) @ I _F = 10mA	V _F	0.9	V
Power Dissipation(Note 1)	P _d	500	mW
Thermal Resistance from Junction to Ambient	R _{θJA}	250	°C/W
Operation Junction and Storage Temperature Range	T _J , T _{stg}	-55 ~ +150	°C

Notes: 1. Mounted on 1 in² FR-4 board with 2oz. Copper, in a still air environment with Ta=25 °C.
2. Short duration test pulse used to minimize self-heating effect

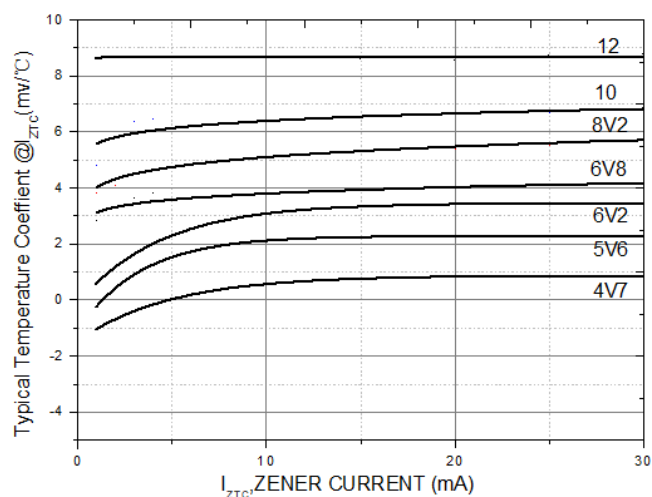
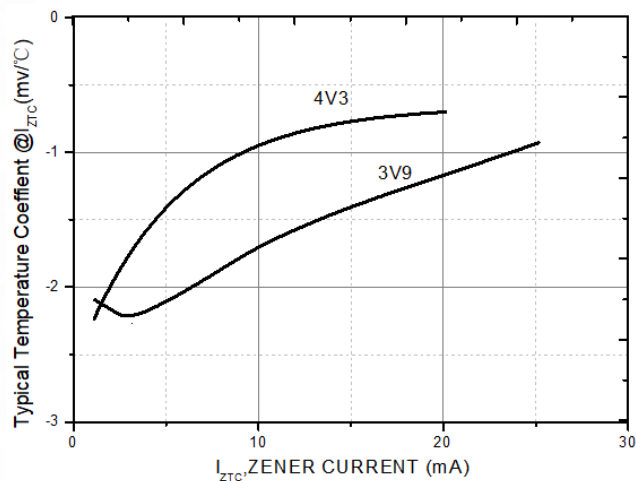
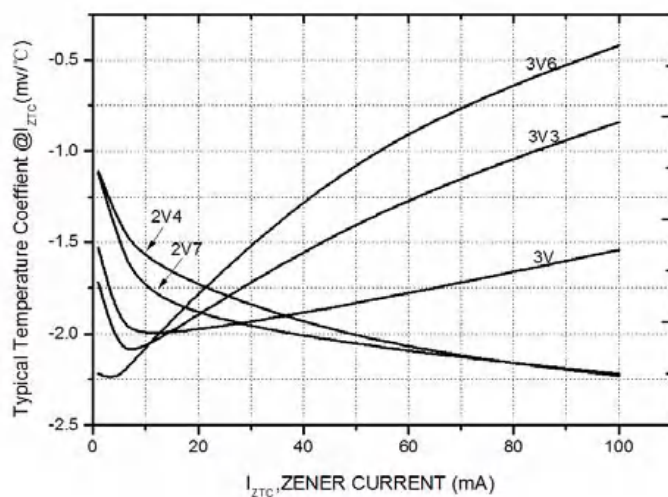
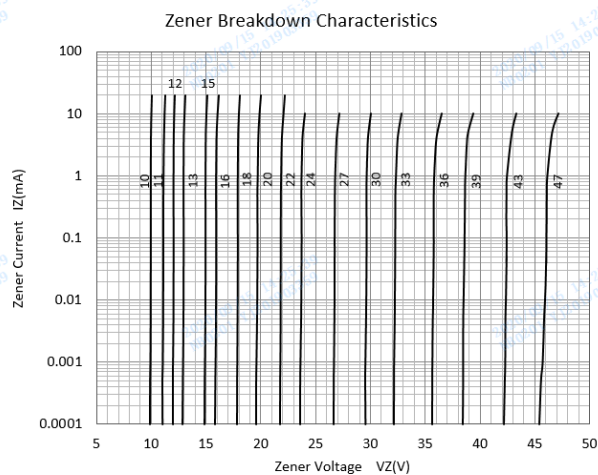
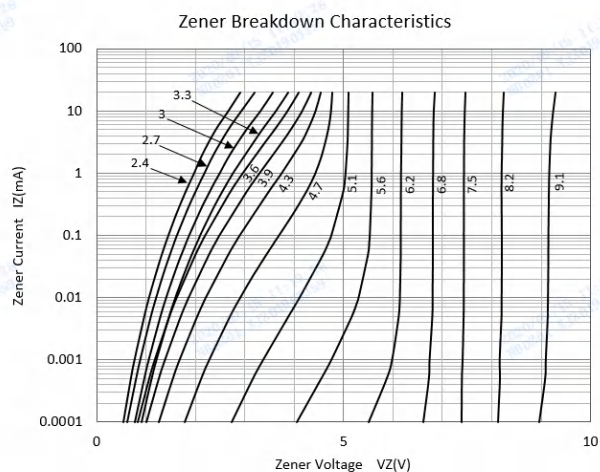
**ELECTRICAL CHARACTERISTICS** $T_a=25^\circ\text{C}$ unless otherwise specified

Type Number	Device Marking	V_z at I_{ZT} (V)			$Z_{zT}(\Omega)$		$Z_{zK}(\Omega)$		$I_R(\mu\text{A})@V_R$		Typical Temperature Coefficient@ I_{ZTC} mV/ $^\circ\text{C}$		Test Current I_{ZTC} mA
		min.	typ.	max.	$I_{ZT}(\text{mA})$	max.	$I_{zK}(\text{mA})$	max.	max	$V_R(\text{V})$	Min	Max	
BZT52B47	2WV	46.06	47	47.94	5	110	1	375	0.1	35.0	42.0	51.8	2
BZT52B51	2WW	50.0	51	52.0	2	180	0.5	400	0.05	35.7	46.6	57.2	2
BZT52B56	X2	54.9	56	57.1	2	200	0.5	425	0.05	39.2	52.2	63.8	2
BZT52B62	X3	60.8	62	63.2	2	215	0.5	450	0.05	43.4	58.8	71.6	2
BZT52B68	X4	66.64	68	69.36	2	240	0.5	475	0.05	47.6	65.6	79.8	2
BZT52B75	X5	73.5	75	76.5	2	255	0.5	500	0.05	52.5	73.4	88.6	2

- Notes: 1. Mounted on 1 in² FR-4 board with 2oz. Copper, in a still air environment with $T_a=25^\circ\text{C}$.
 2. Short duration test pulse used to minimize self-heating effect
 3. $f = 1\text{kHz}$

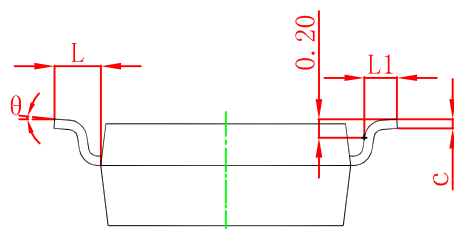
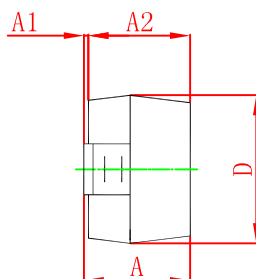
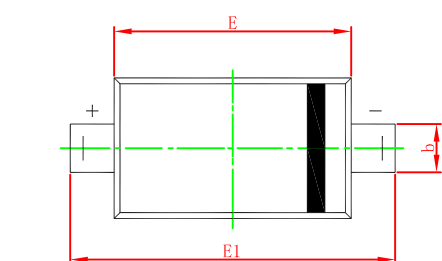


Typical Characteristics



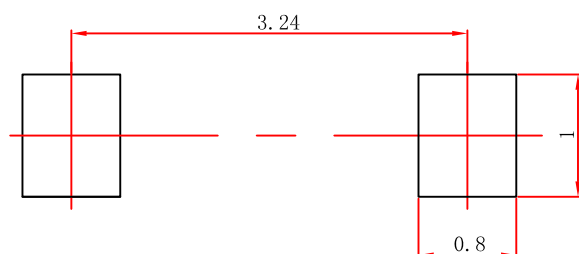


SOD-123 Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.450	0.650	0.018	0.026
c	0.080	0.150	0.003	0.006
D	1.500	1.700	0.059	0.067
E	2.600	2.800	0.102	0.110
E1	3.550	3.850	0.140	0.152
L	0.500 REF		0.020 REF	
L1	0.250	0.450	0.010	0.018
θ	0°	8°	0°	8°

SOD-123 Suggested Pad Layout

**Note:**

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.