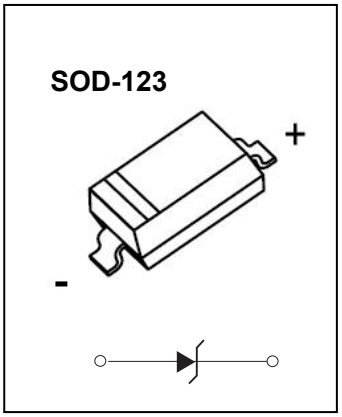
SOD-123 Plastic-Encap sulate Diodes



FEATURES:

- Planar Die Construction
- 500mW Power Dissipation on Ceramic PCB
- General Purpose, Medium Current
- Ideally Suited for Automated Assembly Processes
- Available in Lead Free Version

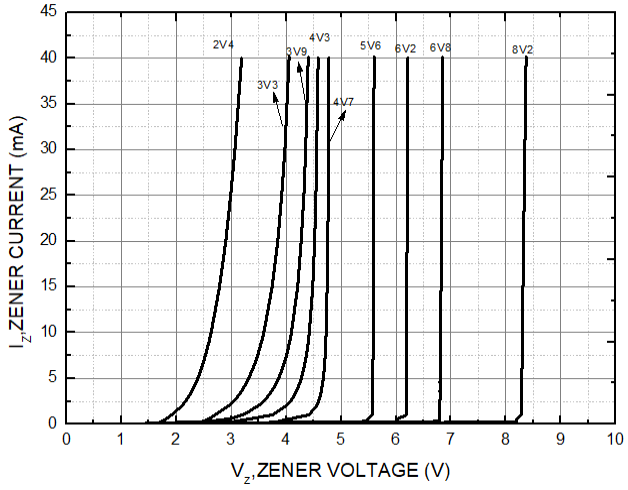
Maximum Ratings(T_a=25℃ unless otherwise specified)

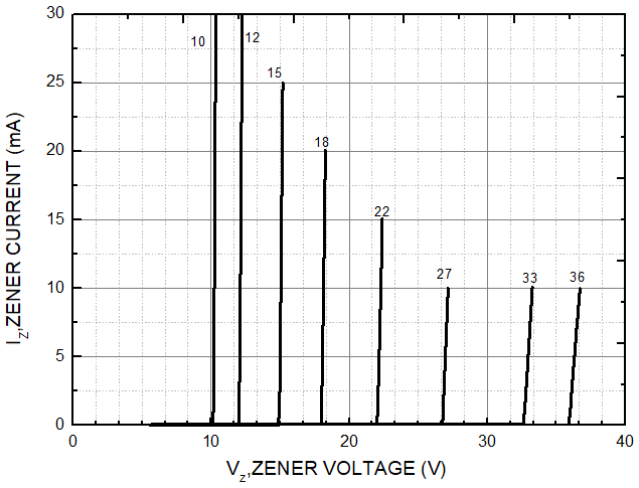
Characteristic	Symbol	Value	Unit
Forward Voltage (Note 2) @ I_F = 10mA	V_F	0.9	V
Power Dissipation(Note 1)	P_D	500	mW
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	357	℃/W
Junction Temperature	T_J	150	℃
Storage Temperature	T_{STG}	-55~+150	℃

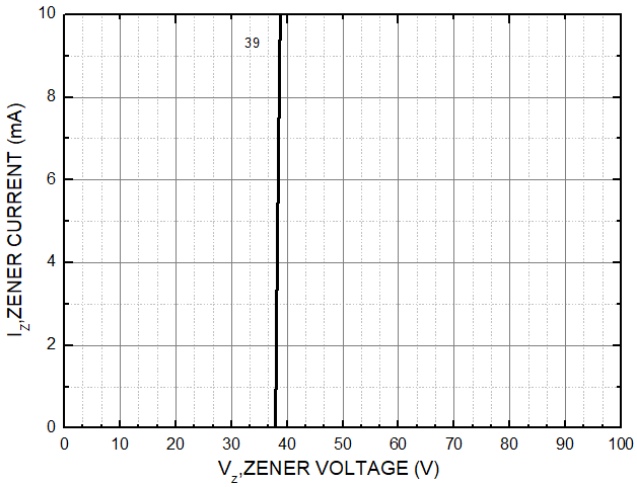
■ Electrical Characteristics (T_a=25℃ Unless otherwise specified)

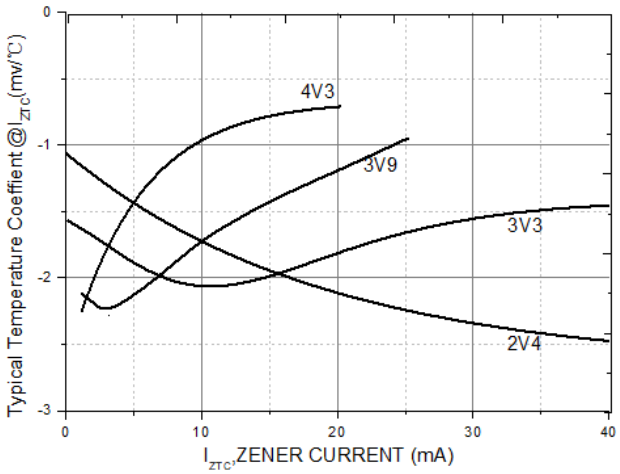
Type Number	Device Marking	V_z at Izt (V)			Izt	Z_{zt}(Ω)		Z_{zk}(Ω)		I_R(μA)@V_R		Typical Temperature Coefficient@ IZTC mV/℃		Test Current IZTC
		min.	typ.	max.	mA	I_Z(mA)	max.	I_{zk}(mA)	max.	max	V_R(V)	Min	Max	mA
BZT52C2V4	WX	2.28	2.4	2.56	5	5	100	1.0	600	50	1.0	-3.5	0	5
BZT52C2V7	W1	2.5	2.7	2.9	5	5	100	1.0	600	20	1.0	-3.5	0	5
BZT52C3V0	W2	2.8	3.0	3.2	5	5	95	1.0	600	10	1.0	-3.5	0	5
BZT52C3V3	W3	3.1	3.3	3.5	5	5	95	1.0	600	5	1.0	-3.5	0	5
BZT52C3V6	W4	3.4	3.6	3.8	5	5	90	1.0	600	5	1.0	-3.5	0	5
BZT52C3V9	W5	3.7	3.9	4.1	5	5	90	1.0	600	3	1.0	-3.5	0	5
BZT52C4V3	W6	4.0	4.3	4.6	5	5	90	1.0	600	3	1.0	-3.5	0	5
BZT52C4V7	W7	4.4	4.7	5.0	5	5	80	1.0	500	3	2.0	-3.5	0	5
BZT52C5V1	W8	4.8	5.1	5.4	5	5	60	1.0	480	2	2.0	-2.7	1.2	5
BZT52C5V6	W9	5.2	5.6	6.0	5	5	40	1.0	400	1	2.0	-2	2.5	5
BZT52C6V2	WA	5.8	6.2	6.6	5	5	10	1.0	150	3	4.0	0.4	3.7	5
BZT52C6V8	WB	6.4	6.8	7.2	5	5	15	1.0	80	2	4.0	1.2	4.5	5
BZT52C7V5	WC	7.0	7.5	7.9	5	5	15	1.0	80	1	5.0	2.5	5.3	5
BZT52C8V2	WD	7.7	8.2	8.7	5	5	15	1.0	80	0.7	5.0	3.2	6.2	5
BZT52C9V1	WE	8.5	9.1	9.6	5	5	15	1.0	100	0.5	6.0	3.8	7.0	5
BZT52C10	WF	9.4	10	10.6	5	5	20	1.0	150	0.2	7.0	4.5	8.0	5
BZT52C11	WG	10.4	11	11.6	5	5	20	1.0	150	0.1	8.0	5.4	9.0	5
BZT52C12	WH	11.4	12	12.7	5	5	25	1.0	150	0.1	8.0	6.0	10.0	5
BZT52C13	WI	12.4	13	14.1	5	5	30	1.0	170	0.1	8.0	7.0	11.0	5
BZT52C15	WJ	14.25	15	15.75	5	5	30	1.0	200	0.1	10.5	9.2	13.0	5
BZT52C16	WK	15.3	16	17.1	5	5	40	1.0	200	0.1	11.2	10.4	14.0	5
BZT52C18	WL	16.8	18	19.1	5	5	45	1.0	225	0.1	12.6	12.4	16.0	5
BZT52C20	WM	18.8	20	21.2	5	5	55	1.0	225	0.1	14.0	14.4	18.0	5
BZT52C22	WN	20.8	22	23.3	5	5	55	1.0	250	0.1	15.4	16.4	20.0	5
BZT52C24	WO	22.8	24	25.6	5	5	70	1.0	250	0.1	16.8	18.4	22.0	5
BZT52C27	WP	25.1	27	28.9	2	2	80	0.5	300	0.1	18.9	21.4	25.3	2
BZT52C30	WQ	28	30	32	2	2	80	0.5	300	0.1	21.0	24.4	29.4	2
BZT52C33	WR	31	33	35	2	2	80	0.5	325	0.1	23.1	27.4	33.4	2
BZT52C36	WS	34	36	38	2	2	90	0.5	350	0.1	25.2	30.4	37.4	2
BZT52C39	WT	37	39	41	2	2	130	0.5	350	0.1	27.3	33.4	41.2	2
BZT52C43	WU	40	43	46	5	5	100	1.0	750	0.1	32	37.6	46.6	2
BZT52C47	WV	44	47	50	5	5	100	1.0	750	0.1	35	42.0	51.8	2
BZT52C51	WW	48	51	54	2	2	180	0.5	400	0.05	35.7	46.6	57.2	2
BZT52C56	X1	53	56	59	2	2	200	1	1000	0.1	42	52.2	63.8	2
BZT52C62	5X2	58	62	66	2	2	215	0.5	450	0.05	43.4	58.8	71.6	2
BZT52C68	5X3	64	68	72	2	2	240	0.5	475	0.05	47.6	65.6	79.8	2
BZT52C75	5X4	70	75	79	2	2	255	0.5	500	0.05	52.5	73.4	88.6	2

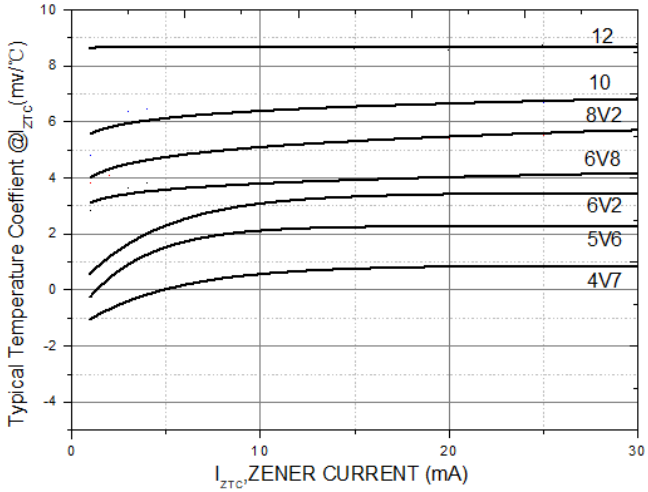
■ Characteristics (Typical)

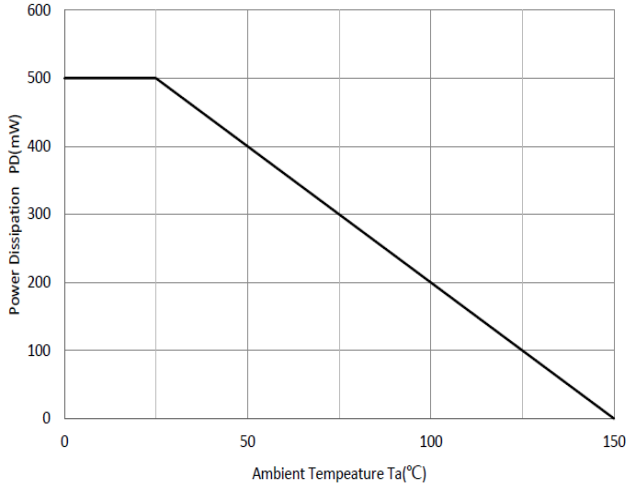




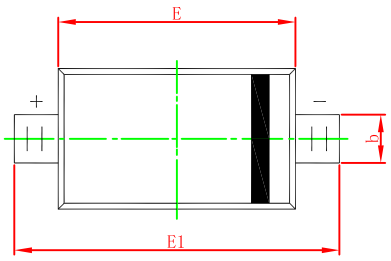


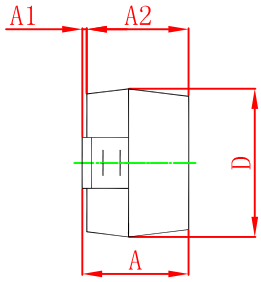


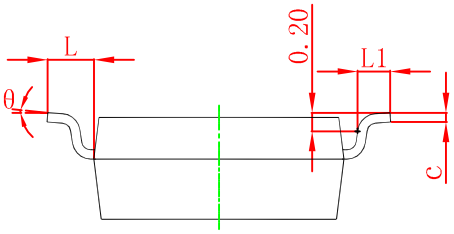




SOD-123 Package Outline Dimensions

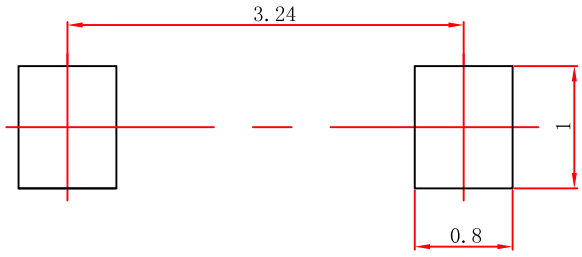






Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min	Max	Min	Max
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.450	0.650	0.018	0.026
c	0.080	0.150	0.003	0.006
D	1.500	1.700	0.059	0.067
E	2.600	2.800	0.102	0.110
E1	3.550	3.850	0.140	0.152
L	0.500 REF		0.020 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:±0.05mm.
3.The pad layout is for reference purposes only.