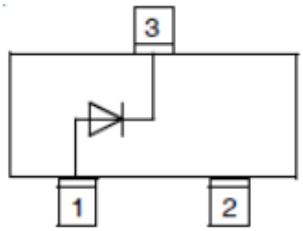
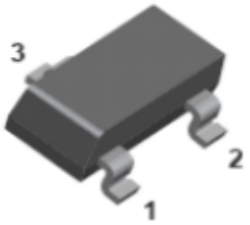
Zener Diodes





SOT-23

Features

- Moisture sensitivity level 1
- Zener voltage 2.4V~36V

Application

- Linear voltage regulator
- DC regulator
- Small-signal surge protection

Mechanical data

- **Package**: SOT-323
- **Terminals**: Tin plated leads, solderable per J-STD-002 and JESD22-B102

■Limiting Values (Absolute Maximum Rating, Ta=25℃ Unless otherwise specified)

Characteristic	Symbol	Value	Units
Maximum Forward Voltage @I_F=10mA	V_F	0.9	V
Power Dissipation	P_D	200	mW
Peak Forward Surge Current*	I_{FSM}	2.0	A
Thermal Resistance	R_{thJA}	625	℃ /W
Operation Temperature	T_J	-55~+150	℃
Storage Temperature Range	T_{STG}	-55~+150	℃

■Ordering Information (Example)

PREFERED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
BZX84B2V4W THRU BZX84B36W	F2	Approximate 0.005	3000	30000	120000	7” reel

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

Type number	Device marking	V_Z @ I_{ZT} (V)			Z_{ZT}(Ω)		Z_{ZK}(Ω)		I_R(μA) @V_R		Diode capacitance Cd (pF)	Non-repetitive peak reverse current Izsm (A)
		min	typ	max	max	I_{ZT} (mA)	max	I_{ZK}(mA)	max	V_R(V)	max	max
BZX84B2V4W	2WX	2.34	2.4	2.46	100	5	600	1	50	1	450	6
BZX84B2V7W	2W1	2.63	2.7	2.77	100	5	600	1	20	1	450	6
BZX84B3V0W	2W2	2.92	3.0	3.08	100	5	600	1	10	1	450	6
BZX84B3V3W	2W3	3.21	3.3	3.39	95	5	600	1	5	1	450	6
BZX84B3V6W	2W4	3.52	3.6	3.67	95	5	600	1	5	1	450	4.5
BZX84B3V9W	2W5	3.82	3.9	3.98	95	5	600	1	3	1	450	4.5
BZX84B4V3W	2W6	4.21	4.3	4.39	95	5	600	1	3	1	450	3.5
BZX84B4V7W	2W7	4.61	4.7	4.79	80	5	500	1	3	2	300	3.5
BZX84B5V1W	2W8	5.0	5.1	5.2	60	5	480	1	2	2	300	3
BZX84B5V6W	2W9	5.49	5.6	5.71	40	5	400	1	1	2	200	3
BZX84B6V2W	2WA	6.08	6.2	6.32	10	5	150	1	3	4	200	3
BZX84B6V8W	2WB	6.66	6.8	6.94	15	5	80	1	2	4	200	2
BZX84B7V5W	2WC	7.35	7.5	7.65	15	5	80	1	1	5	150	2
BZX84B8V2W	2WD	8.04	8.2	8.36	15	5	80	1	0.7	5	150	2
BZX84B9V1W	2WE	8.92	9.1	9.28	15	5	100	1	0.5	6	150	1.8
BZX84B10W	WG	9.8	10	10.2	20	5	150	1	0.2	7	90	1.8
BZX84B11W	2WG	10.78	11	11.22	20	5	150	1	0.1	8	85	1.8
BZX84B12W	WI	11.76	12	12.24	25	5	150	1	0.1	8	85	1.8
BZX84B13W	2WI	12.74	13	13.3	30	5	170	1	0.1	8	80	1
BZX84B15W	WL	14.7	15	15.3	30	5	200	1	0.1	10.5	75	1
BZX84B16W	WM	15.68	16	16.3	40	5	200	1	0.1	11.2	75	1
BZX84B18W	WN	17.6	18	18.4	45	5	225	1	0.1	12.6	70	1
BZX84B20W	2WM	19.6	20	20.4	55	5	225	1	0.1	14	60	1
BZX84B22W	2WN	21.56	22	22.44	55	5	250	1	0.1	15.4	60	0.6
BZX84B24W	WR	23.52	24	24.5	70	5	250	1	0.1	16.8	55	0.6
BZX84B27W	2WP	26.46	27	27.54	80	5	300	1	0.1	18.9	50	0.6
BZX84B30W	2WQ	29.4	30	30.6	80	5	300	1	0.1	21	50	0.6
BZX84B33W	2WR	32.34	33	33.7	80	5	325	1	0.1	23.1	45	0.6
BZX84B36W	2WS	35.28	36	36.72	90	5	350	1	0.1	25.2	45	0.6

■ Characteristics (Typical)

Fig 1：P_D-Ta Curve

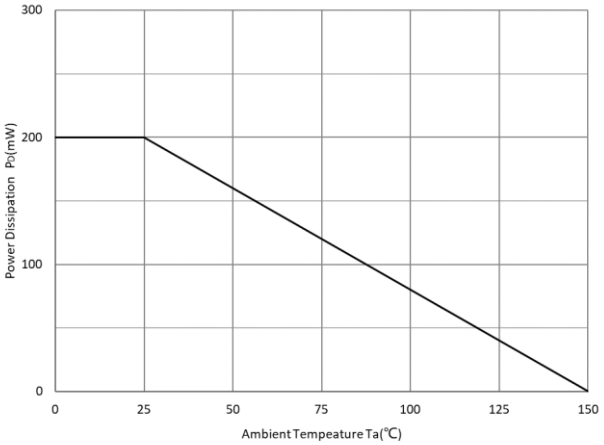


Fig 2：Zener Breakdown Characteristics

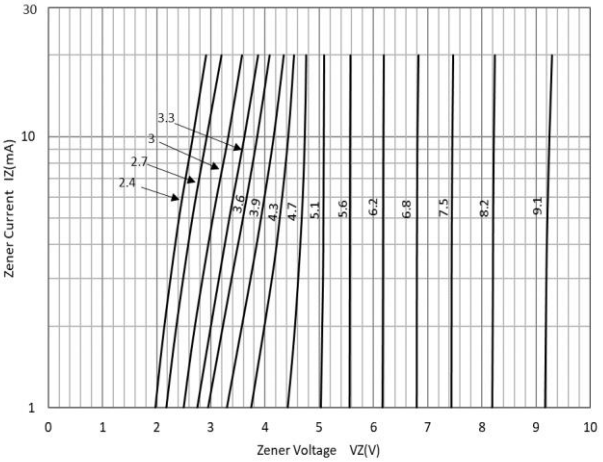


Fig 3：Zener Breakdown Characteristics

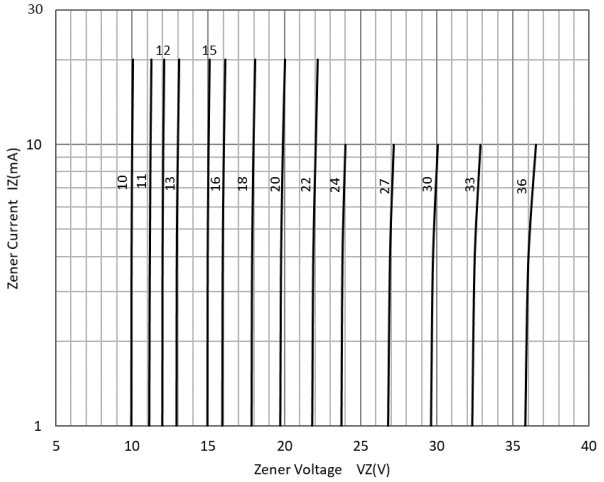


Fig 4 Typical Temperature Coeffient

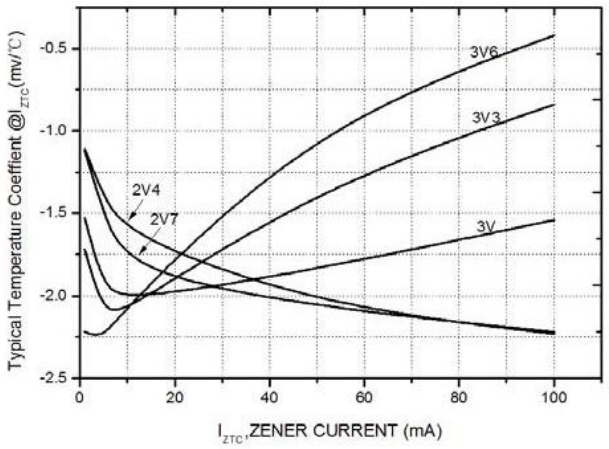


Fig 5 Typical Temperature Coeffient

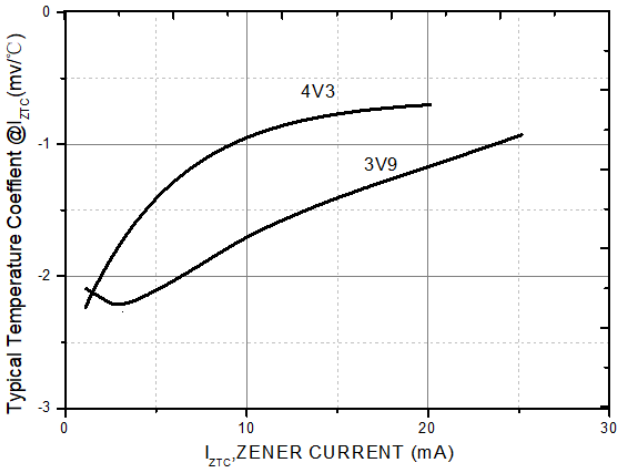


Fig 6：Typical Temperature Coeffient

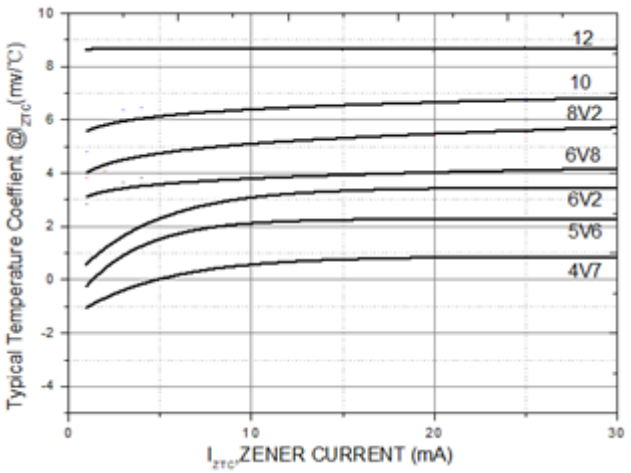


Fig 7：Typical Temperature Coeffient

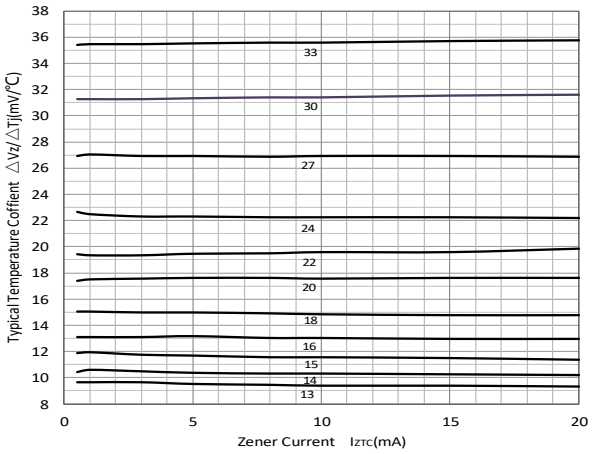


Fig 8：Typical Forward Voltage

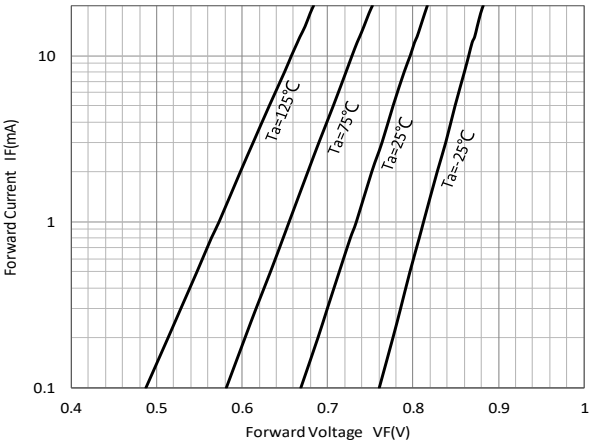


Fig 9：Typical Reverse Current

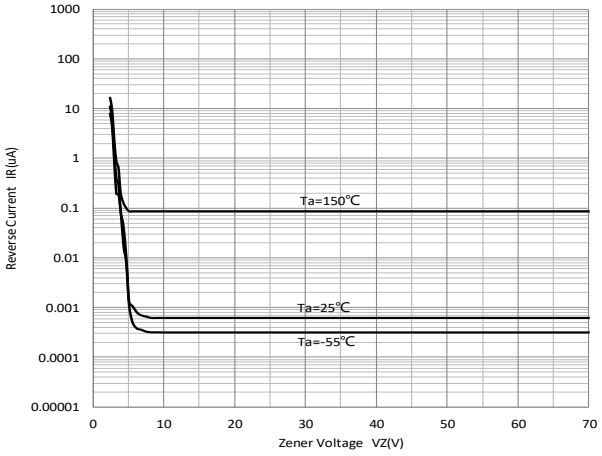
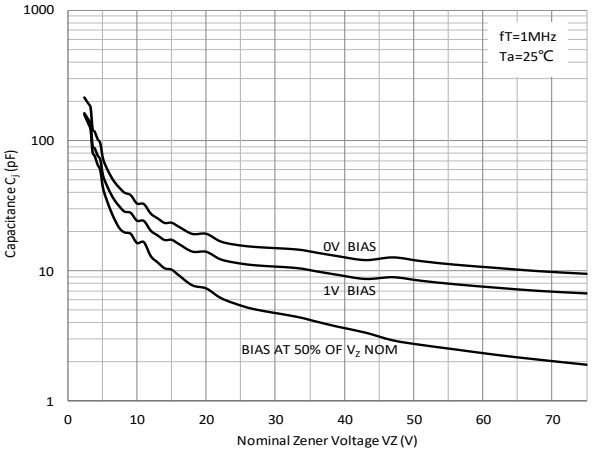
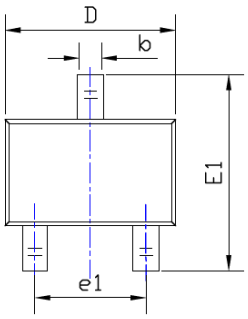


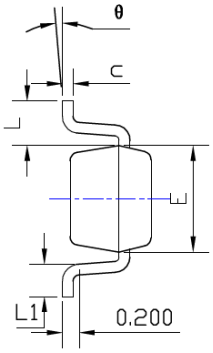
Fig 10：Typical Capacitance



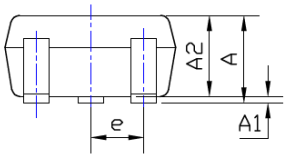
■SOT-323 Package Outline Dimensions



TOP VIEW



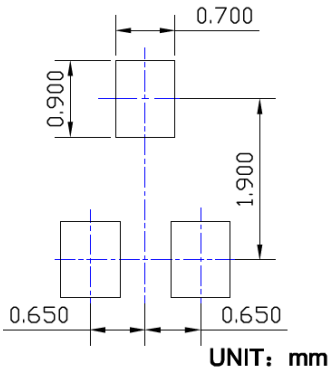
SIDE VIEW



SIDE VIEW

DIMENSIONS				
SYMBOL	INCHES		Millimeter	
	MIN.	MAX.	MIN.	MAX.
A	0.035	0.043	0.900	1.100
A1	0.000	0.004	0.000	0.100
A2	0.035	0.039	0.900	1.000
b	0.006	0.016	0.150	0.400
c	0.004	0.010	0.100	0.250
D	0.071	0.087	1.800	2.200
E	0.045	0.053	1.150	1.350
E1	0.085	0.096	2.150	2.450
e	0.026TYP		0.650TYP	
e1	0.047	0.055	1.200	1.400
L	0.021REF		0.525REF	
L1	0.010	0.018	0.260	0.460
θ	0°	8°	0°	8°

■SOT-323 Suggested Pad Layout



UNIT：mm

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