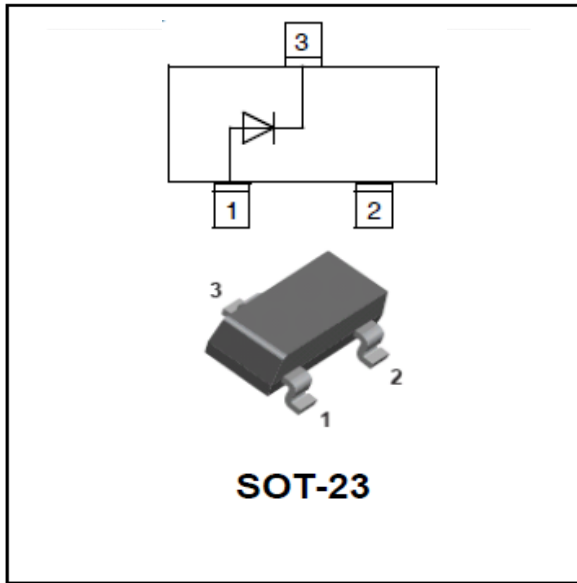


Zener Diodes



Features

- High reliability
- Very sharp reverse characteristic
- Low reverse current level
- Zener Voltage 2.4V~36V

Mechanical Data

- **Package:** SOT-23
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, halogen-free
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102

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

Characteristic	Symbol	Value	Units
Maximum Forward Voltage@I _F =10mA	V _F	0.9	V
Power Dissipation	P _D	350	mW
Peak Forward Surge Current*	I _{FSM}	2.0	A
Thermal Resistance	R _{thJA}	357	°C /W
Operation Temperature	T _J	-55~+150	°C
Storage Temperature Range	T _{STG}	-55~+150	°C

■Ordering Information (Example)

PREFERRED P/N	PACKING CODE	UNIT WEIGHT(g)	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
BZX84B2V4 THRU BZX84B36	F2	Approximate 0.008	3000	30000	120000	7" reel



BZX84B2V4 THRU BZX84B36

■Electrical Characteristics (T_a=25°C Unless otherwise specified)

Type Number	Marking Code	Nominal Zener Voltage			Maximum Zener Impedance				Max Reverse Leakage Current		Typical Temperature Coefficient @I _{ZTC}	
		V _Z (V)at I _{zt} =5mA			Z _{zT} (Ω)@I _{zT}		Z _{zK} (Ω)@I _{zK}		I _R (uA) @ V _R			
		Min.	Typ.	Max.	Max	I _{zt} (mA)	Max	I _{zk} (mA)	Max	V _R (V)	mV/°C	
BZX84B2V4	Z11.	2.34	2.4	2.46	100	5	600	1	45	1	-3.5	0
BZX84B2V7	Z12.	2.63	2.7	2.77	100	5	600	1	20	1	-3.5	0
BZX84B3V0	Z13.	2.92	3.0	3.08	100	5	600	1	10	1	-3.5	0
BZX84B3V3	Z14.	3.21	3.3	3.39	95	5	600	1	15	1	-3.5	0
BZX84B3V6	Z15.	3.52	3.6	3.67	95	5	600	1	15	1	-3.5	0
BZX84B3V9	Z16.	3.82	3.9	3.98	95	5	600	1	10	1	-3.5	0
BZX84B4V3	Z17.	4.21	4.3	4.39	95	5	600	1	3	1	-3.5	0
BZX84B4V7	Z1.	4.61	4.7	4.79	80	5	500	1	3	2	-3.5	0.2
BZX84B5V1	Z2.	5.0	5.1	5.2	60	5	480	1	2	2	-2.7	1.2
BZX84B5V6	Z3.	5.49	5.6	5.71	40	5	400	1	1	2	-2.0	2.5
BZX84B6V2	Z4.	6.08	6.2	6.32	10	5	150	1	3	4	0.4	3.7
BZX84B6V8	Z5.	6.66	6.8	6.94	15	5	80	1	2	4	1.2	4.5
BZX84B7V5	Z6.	7.35	7.5	7.65	15	5	80	1	1	5	2.5	5.3
BZX84B8V2	Z7.	8.04	8.2	8.36	15	5	80	1	0.7	5	3.2	6.2
BZX84B9V1	Z8.	8.92	9.1	9.28	15	5	100	1	0.5	6	3.8	7.0
BZX84B10	Z9.	9.8	10	10.2	20	5	150	1	0.2	7	4.5	8.0
BZX84B11	Y1.	10.78	11	11.22	20	5	150	1	0.1	8	5.4	9.0
BZX84B12	Y2.	11.76	12	12.24	25	5	150	1	0.1	8	6.0	10.0
BZX84B13	Y3.	12.74	13	13.3	30	5	170	1	0.1	8	7.0	11.0
BZX84B15	Y4.	14.7	15	15.3	30	5	200	1	0.1	10.5	9.2	13.0
BZX84B16	Y5.	15.68	16	16.3	40	5	200	1	0.1	11.2	10.4	14.0
BZX84B18	Y6.	17.6	18	18.4	45	5	225	1	0.1	12.6	12.4	16.0
BZX84B20	Y7.	19.6	20	20.4	55	5	225	1	0.1	14	14.4	18.0
BZX84B22	Y8.	21.56	22	22.44	55	5	250	1	0.1	15.4	16.4	20.0
BZX84B24	Y9.	23.52	24	24.5	70	5	250	1	0.1	16.8	18.4	22.0
BZX84B27	Y10.	26.46	27	27.54	80	5	300	1	0.1	18.9	21.4	25.3
BZX84B30	Y11.	29.4	30	30.6	80	5	300	1	0.1	21	24.4	29.4
BZX84B33	Y12.	32.34	33	33.7	80	5	325	1	0.1	23.1	27.4	33.4
BZX84B36	Y13.	35.28	36	36.72	90	5	350	1	0.1	25.2	30.4	37.4



BZX84B2V4 THRU BZX84B36

■ Characteristics (Typical)

Fig 1: Zener Breakdown Characteristics

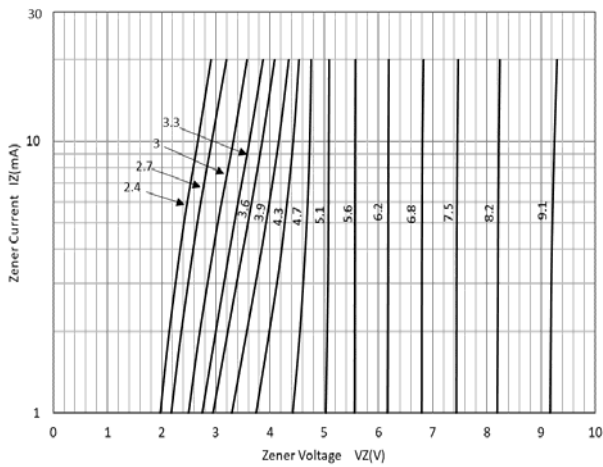


Fig 2: Zener Breakdown Characteristics

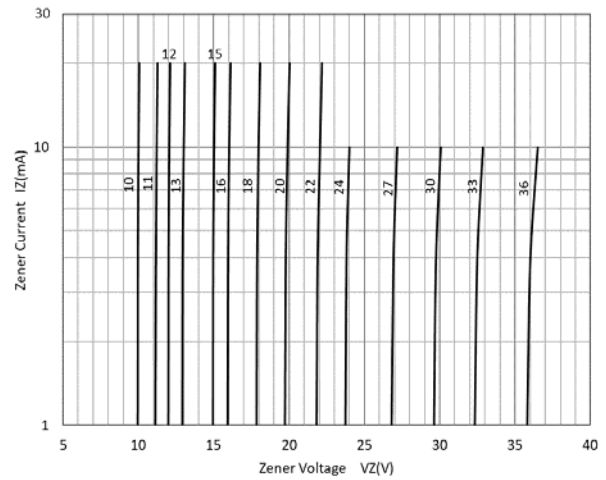


Fig 3 Typical Temperature Coefficient

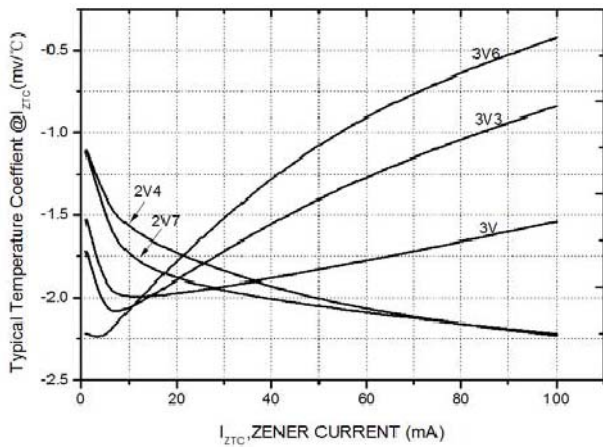


Fig 4: Typical Temperature Coefficient

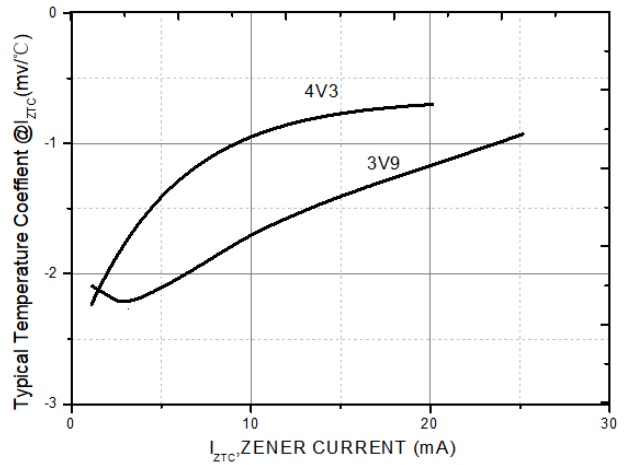
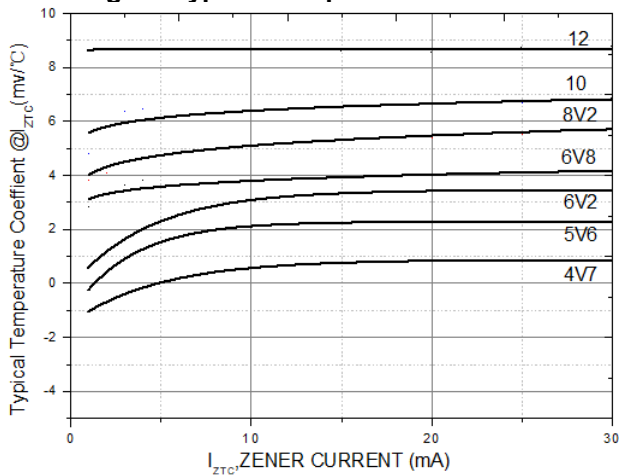


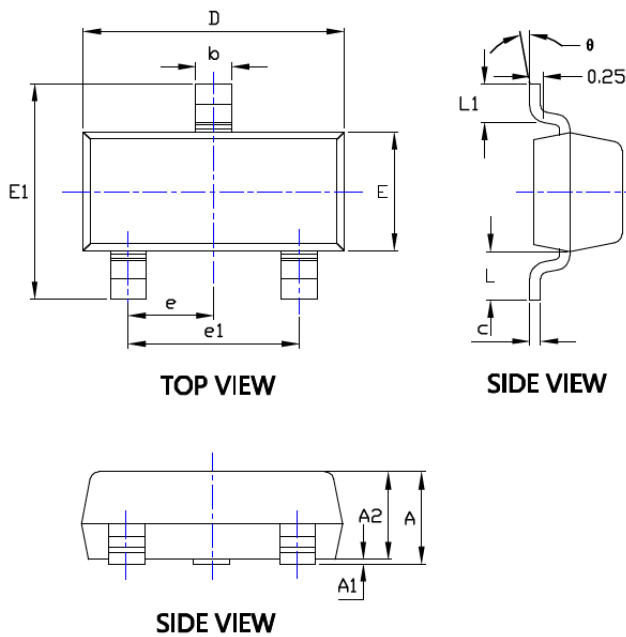
Fig 5: Typical Temperature Coefficient





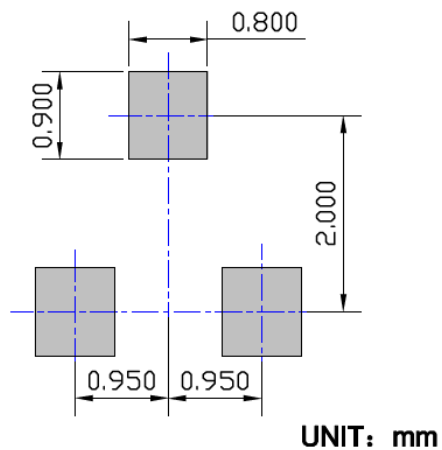
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■SOT-23 Package Outline Dimensions



SYMBOL	DIMENSIONS			
	INCHES		Millimeter	
	MIN.	MAX.	MIN.	MAX.
A	0.035	0.045	0.900	1.150
A1	0.000	0.004	0.000	0.100
A2	0.035	0.041	0.900	1.050
b	0.012	0.020	0.300	0.500
c	0.004	0.008	0.100	0.200
D	0.110	0.118	2.800	3.000
E	0.047	0.055	1.200	1.400
E1	0.089	0.100	2.250	2.550
e	0.037TYP		0.950TYP	
e1	0.071	0.079	1.800	2.000
L	0.022REF		0.550REF	
L1	0.012	0.200	0.300	0.500
θ	0°	8°	0°	8°

■SOT-23 Suggested Pad Layout





BZX84B2V4 THRU BZX84B36

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