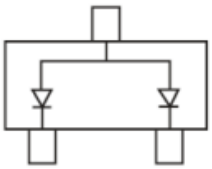
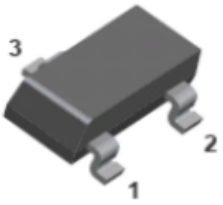
Zener Diode





SOT-23

Features

- Moisture sensitivity level 1
- Zener voltage 2.4V~47V

Application

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

Mechanical data

- **Package**: SOT-23
- **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	300	mW
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	417	℃ /W
Junction Temperature	T_J	-55~+150	°C
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
AZ23B2V4-AZ23B47	F2	Approximate 0.008	3000	30000	120000	7” reel

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

Type Numbe	Marking Code	V_z at IzT (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
AZ23B2V4	D0	2.34	2.4	2.46	100	5	600	1	45	1.0	450	6
AZ23B2V7	D1	2.63	2.7	2.77	100	5	600	1	20	1.0	450	6
AZ23B3V0	D2	2.92	3.0	3.08	100	5	600	1	9	1.0	450	6
AZ23B3V3	D3	3.21	3.3	3.39	95	5	600	1	4.5	1.0	450	6
AZ23B3V6	D4	3.52	3.6	3.67	95	5	600	1	15	1.0	450	4.5
AZ23B3V9	D5	3.82	3.9	3.98	95	5	600	1	10	1.0	450	4.5
AZ23B4V3	D6	4.21	4.3	4.39	95	5	600	1	5	1.0	450	3.5
AZ23B4V7	D7	4.61	4.7	4.79	78	5	500	1	5	2.0	300	3.5
AZ23B5V1	D8	5.0	5.1	5.2	60	5	480	1	0.1	0.8	300	3
AZ23B5V6	D9	5.49	5.6	5.71	40	5	400	1	0.1	1.0	200	3
AZ23B6V2	DA	6.08	6.2	6.32	10	5	150	1	0.1	2.0	200	3
AZ23B6V8	DB	6.66	6.8	6.94	8	5	80	1	0.1	3.0	200	2
AZ23B7V5	DC	7.35	7.5	7.65	7	5	80	1	0.1	5.0	150	2
AZ23B8V2	DD	8.04	8.2	8.36	7	5	80	1	0.1	6.0	150	2
AZ23B9V1	DE	8.92	9.1	9.28	10	5	100	1	0.1	7.0	150	1.8
AZ23B10	DF	9.8	10	10.2	15	5	150	1	0.1	7.5	90	1.8
AZ23B11	DG	10.78	11	11.22	20	5	150	1	0.1	8.5	85	1.8
AZ23B12	DH	11.76	12	12.24	20	5	150	1	0.1	9.0	85	1.8
AZ23B13	DI	12.74	13	13.3	25	5	170	1	0.1	10.0	80	1
AZ23B15	DJ	14.7	15	15.3	30	5	200	1	0.1	11.0	75	1
AZ23B16	DK	15.68	16	16.3	40	5	200	1	0.1	12	75	1
AZ23B18	DL	17.6	18	18.4	50	5	225	1	0.1	14.0	70	1
AZ23B20	DM	19.6	20	20.4	55	5	225	1	01.	15.0	60	1
AZ23B22	DN	21.56	22	22.44	55	5	250	1	0.1	17.0	60	0.6
AZ23B24	DO	23.52	24	24.5	70	5	250	1	0.1	18.0	55	0.6
AZ23B27	DP	26.46	27	27.54	80	5	300	1	0.1	20.0	50	0.6
AZ23B30	DQ	29.4	30	30.6	80	5	300	1	0.1	22.5	50	0.6
AZ23B33	DR	32.34	33	33.7	80	5	325	1	0.1	25.0	45	0.6
AZ23B36	DS	35.28	36	36.72	90	5	350	1	0.1	27.0	45	0.6
AZ23B39	DT	38.22	39	39.8	90	5	350	1	0.1	29.0	45	0.6
AZ23B43	D30	42.14	43	43.86	100	5	375	1	0.1	32.0	40	0.6
AZ23B47	D31	46.06	47	47.94	110	5	375	1	0.1	35.0	40	0.5

■ **Characteristics**(Typical)

Fig 1：P_D-Ta Curve

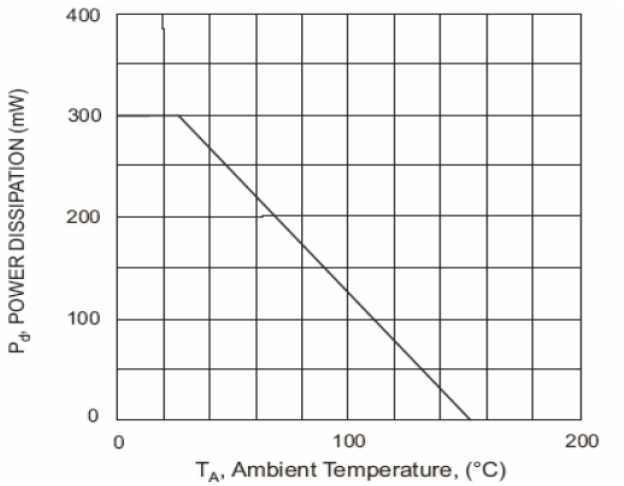


Fig 2：Zener Breakdown Characteristics

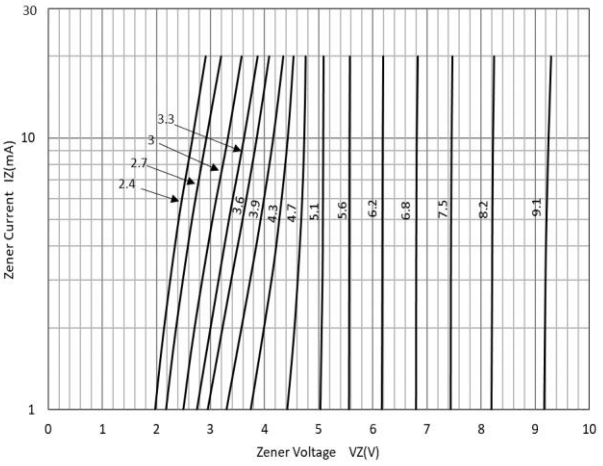


Fig 3：Zener Breakdown Characteristics

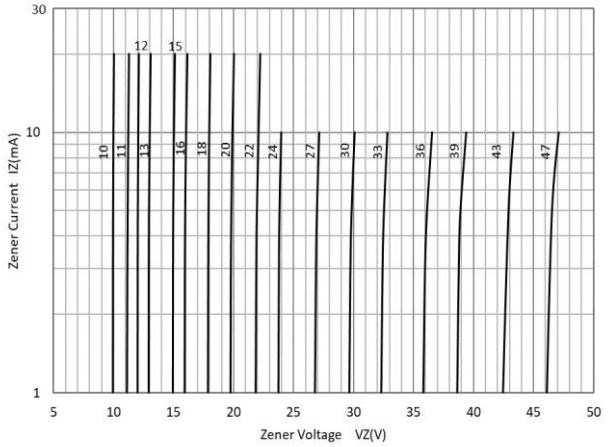


Fig 4 Typical Temperature Coeffient

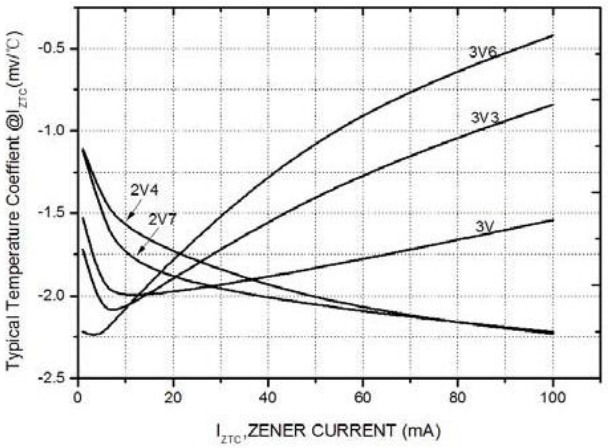


Fig 5 Typical Temperature Coeffient

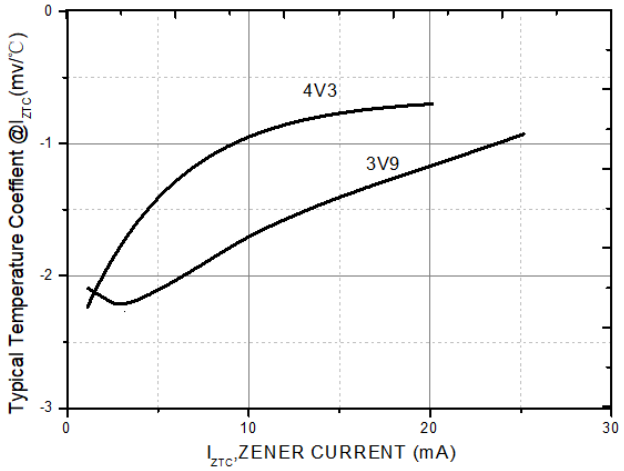


Fig 6：Typical Temperature Coeffient

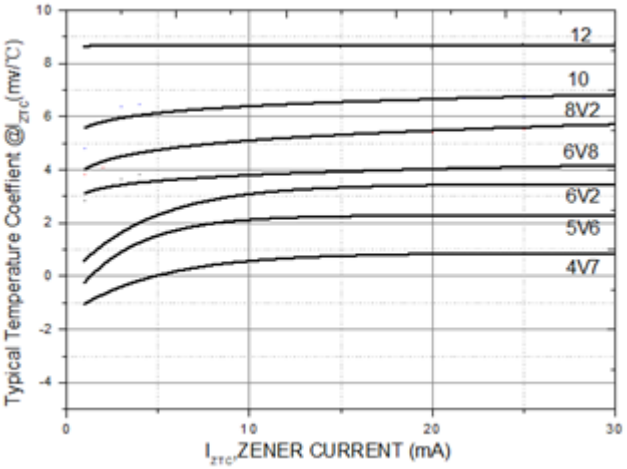


Fig 7：Typical Temperature Coeffient

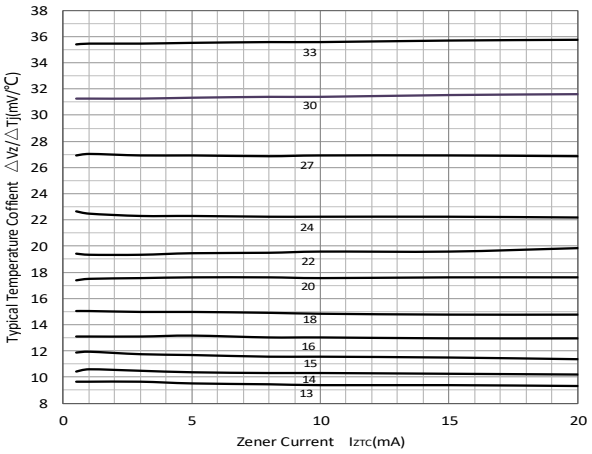


Fig 8：Typical Temperature Coeffient

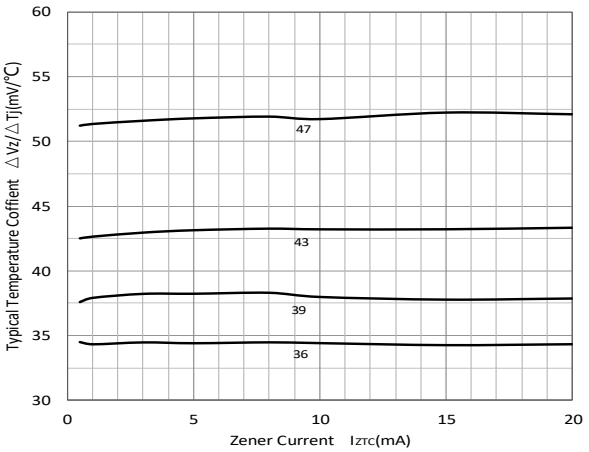


Fig 9：Typical Forward Voltage

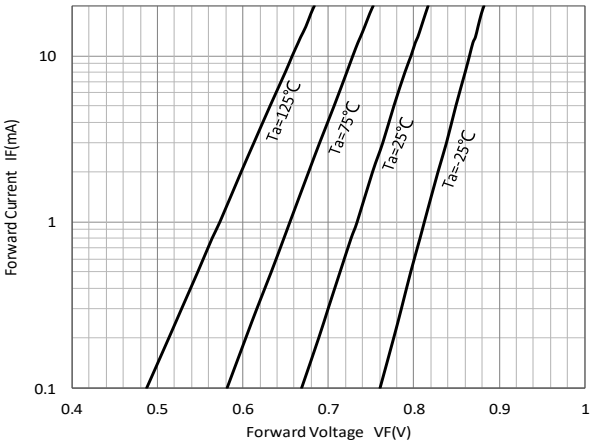


Fig 10：Typical Reverse Current

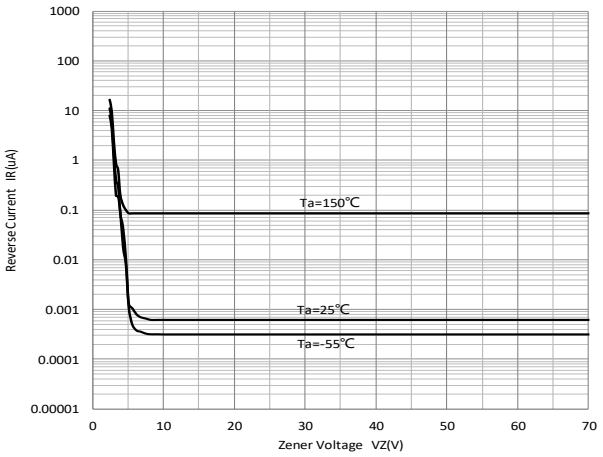
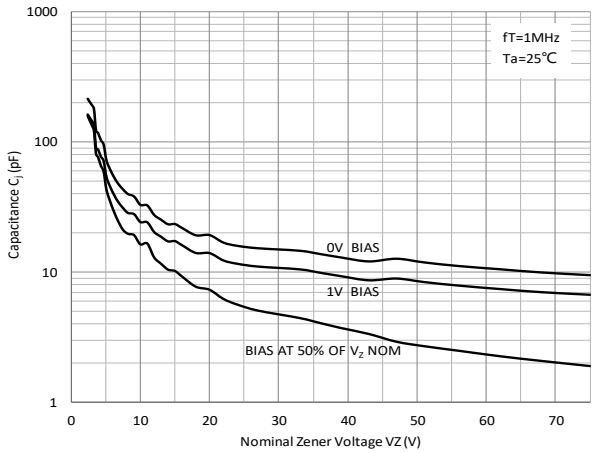
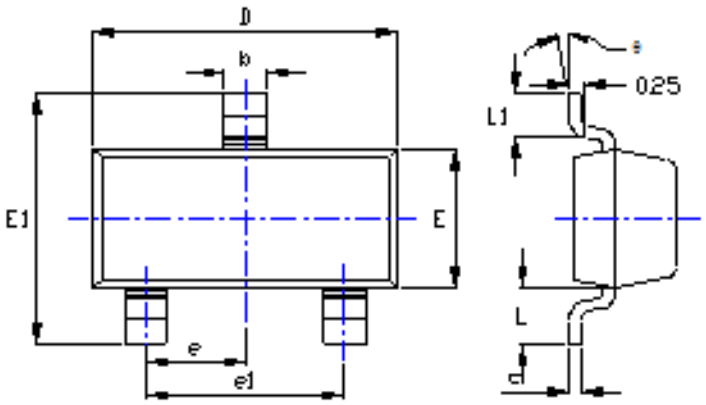
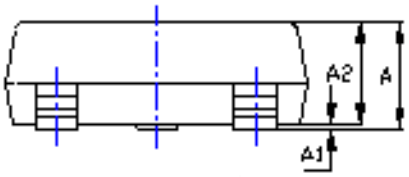


Fig 11：Typical Capacitance



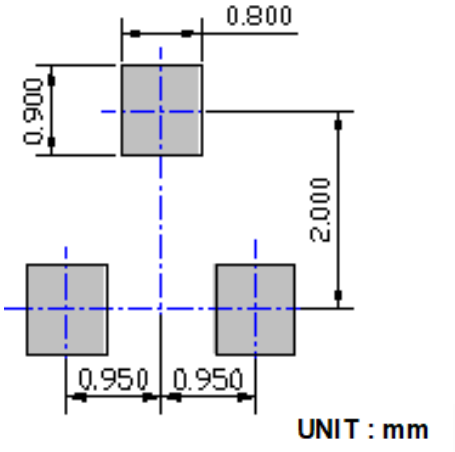
■SOT-23 Package Outline Dimensions





DIMENSIONS				
SYMBOL	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	0.020	0.300	0.500
θ	0°	8°	0°	8°

■SOT-23 Soldering Footprint



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