EVVOSEMI®

THINK CHANGE DO

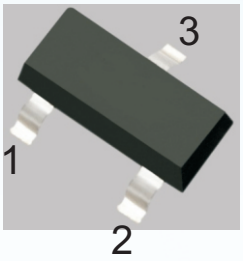
ESD TVS MOS LDO Diode Sensor DC-DC

Product Specification

Domestic Part Number	BZX84 Series
Overseas Part Number	BZX84 Series
Equivalent Part Number	BZX84 Series

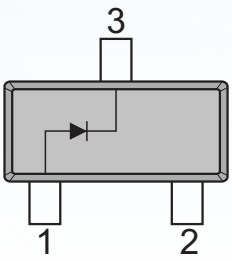
Silicon Planar Zener Diodes

SOT-23



FEATURES

- Total power dissipation: Max. 350mW.
- Wide zener reverse voltage range 2.0V to 75V.
- Small plastic package suitable for surface mounted design.
- Tolerance approximately ±2%and±5%



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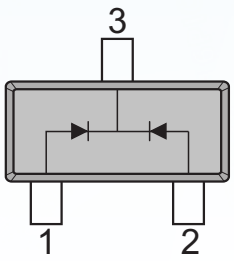


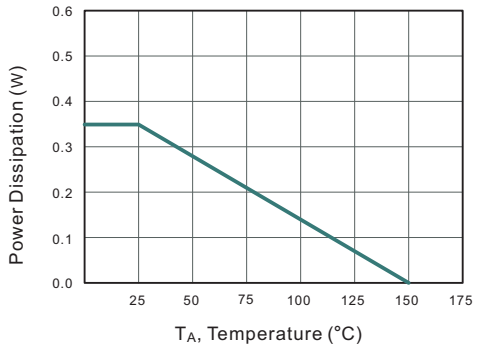
Suffix CA

Absolute Maximum Ratings And Characteristics (Ta = 25 °C)

Parameter	Symbol	Value	Unit
Power Dissipation	P_{tot}	350	mW
Forward Voltage at I_F = 10mA	V_F	0.9	V
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150	°C

(1) Thermal resistance from junction to ambient at P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper areas pads.

Fig.1 Maximum Continuous Power Derating



Characteristics at Ta = 25°C

Type	Marking	Type	Marking	Zener Voltage Range (1)			I_{ZT}	Dynamic Impedance	Reverse Current	
				V_{ZT} (at I_{ZT})				Z_{ZT} (at I_{ZT})	I_R	at V_R
				Min (V)	Nom (V)	Max (V)	(mA)	Max (Ω)	Max (μA)	(V)
BZX84B2V0A	BAA	BZX84B2V0CA	BACA	1.96	2	2.04	5	100	120	0.5
BZX84B2V2A	BBA	BZX84B2V2CA	BBCA	2.16	2.2	2.24	5	100	120	0.7
BZX84B2V4A	BCA	BZX84B2V4CA	BCCA	2.35	2.4	2.45	5	100	120	1
BZX84B2V7A	BDA	BZX84B2V7CA	BDCA	2.65	2.7	2.75	5	110	120	1
BZX84B3V0A	BEA	BZX84B3V0CA	BECA	2.94	3	3.06	5	120	50	1
BZX84B3V3A	BFA	BZX84B3V3CA	BFCA	3.23	3.3	3.37	5	130	20	1
BZX84B3V6A	BGA	BZX84B3V6CA	BGCA	3.53	3.6	3.67	5	130	10	1
BZX84B3V9A	BHA	BZX84B3V9CA	BHCA	3.82	3.9	3.98	5	130	5	1
BZX84B4V3A	BJA	BZX84B4V3CA	BJCA	4.21	4.3	4.39	5	130	5	1
BZX84B4V7A	BKA	BZX84B4V7CA	BKCA	4.61	4.7	4.79	5	130	2	1
BZX84B5V1A	BLA	BZX84B5V1CA	BLCA	5.00	5.1	5.20	5	130	2	1.5
BZX84B5V6A	BMA	BZX84B5V6CA	BMCA	5.49	5.6	5.71	5	80	1	2.5
BZX84B6V2A	BNA	BZX84B6V2CA	BNCA	6.08	6.2	6.32	5	50	1	3
BZX84B6V8A	BPA	BZX84B6V8CA	BPCA	6.66	6.8	6.94	5	30	0.5	3.5
BZX84B7V5A	BRA	BZX84B7V5CA	BRCA	7.35	7.5	7.65	5	30	0.5	4
BZX84B8V2A	BSA	BZX84B8V2CA	BSCA	8.04	8.2	8.36	5	30	0.5	5
BZX84B9V1A	BTA	BZX84B9V1CA	BTCA	8.92	9.1	9.28	5	30	0.5	6
BZX84B10A	BUA	BZX84B10CA	BUCA	9.80	10	10.2	5	30	0.1	7
BZX84B11A	BVA	BZX84B11CA	BVCA	10.78	11	11.22	5	30	0.1	8
BZX84B12A	BWA	BZX84B12CA	BWCA	11.76	12	12.24	5	35	0.1	9
BZX84B13A	BXA	BZX84B13CA	BXCA	12.74	13	13.26	5	35	0.1	10
BZX84B15A	BYA	BZX84B15CA	BYCA	14.70	15	15.3	5	40	0.1	11
BZX84B16A	BZA	BZX84B16CA	BZCA	15.68	16	16.32	5	40	0.1	12
BZX84B18A	B1A	BZX84B18CA	B1CA	17.64	18	18.36	5	45	0.1	13
BZX84B20A	B2A	BZX84B20CA	B2CA	19.60	20	20.4	5	50	0.1	15
BZX84B22A	B3A	BZX84B22CA	B3CA	21.56	22	22.44	5	55	0.1	17
BZX84B24A	B4A	BZX84B24CA	B4CA	23.52	24	24.48	5	60	0.1	19
BZX84B27A	B5A	BZX84B27CA	B5CA	26.46	27	27.54	5	70	0.1	21
BZX84B30A	B6A	BZX84B30CA	B6CA	29.40	30	30.6	5	80	0.1	23
BZX84B33A	B7A	BZX84B33CA	B7CA	32.34	33	33.66	5	80	0.1	25
BZX84B36A	B8A	BZX84B36CA	B8CA	35.28	36	36.72	5	90	0.1	27
BZX84B39A	B9A	BZX84B39CA	B9CA	38.22	39	39.78	2.5	100	2	30
BZX84B43A	3AA	BZX84B43CA	3ACA	42.14	43	43.86	2.5	130	2	33
BZX84B47A	3BA	BZX84B47CA	3BCA	46.06	47	47.94	2.5	150	2	36
BZX84B51A	3CA	BZX84B51CA	3CCA	49.98	51	52.02	2.5	180	1	39
BZX84B56A	3DA	BZX84B56CA	3DCA	54.88	56	57.12	2.5	180	1	43
BZX84B62A	3EA	BZX84B62CA	3ECA	60.76	62	63.24	2.5	200	0.2	47
BZX84B68A	3FA	BZX84B68CA	3FCA	66.64	68	69.36	2.5	250	0.2	52
BZX84B75A	3HA	BZX84B75CA	3HCA	73.50	75	76.5	2.5	300	0.2	57

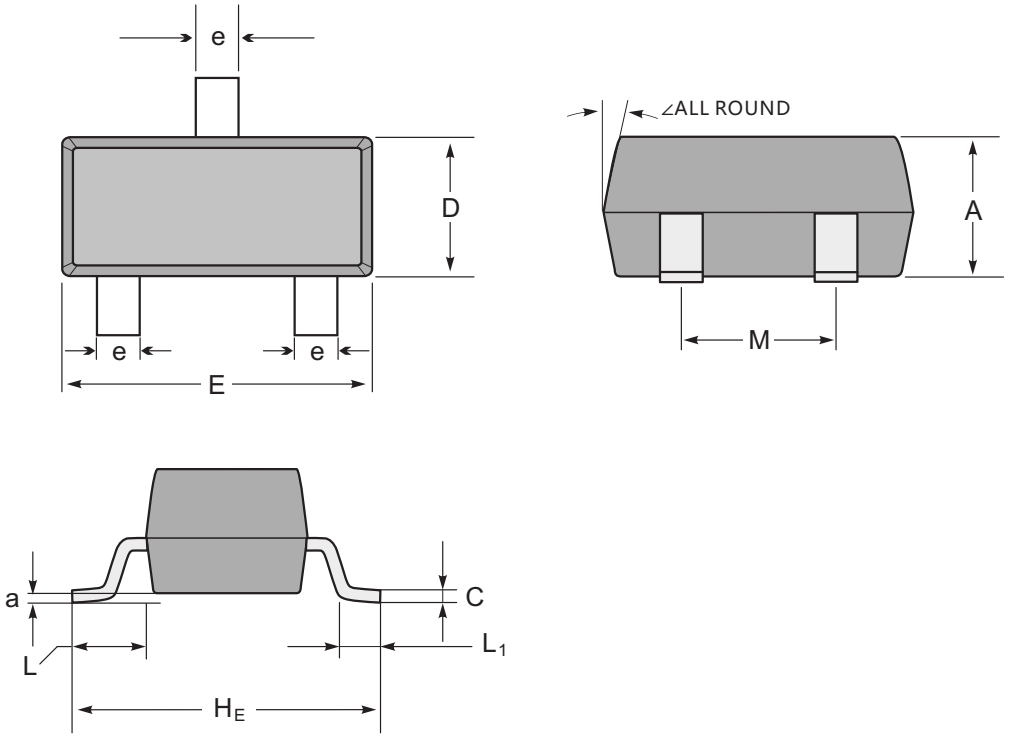
(1) V_{ZT} is tested with pulses (20 ms)
(2) B:±2%
(3) C:±5%

Characteristics at Ta = 25°C

Type	Marking	Type	Marking	Zener Voltage Range (1)			I_{ZT}	Dynamic Impedance	Reverse Current	
				V_{ZT} (at I_{ZT})				Z_{ZT} (at I_{ZT})	I_R	at V_R
				Min (V)	Nom (V)	Max (V)	(mA)	Max (Ω)	Max (μA)	(V)
BZX84C2V0A	CAA	BZX84C2V0CA	CACA	1.8	2.0	2.15	5	100	120	0.5
BZX84C2V2A	CBA	BZX84C2V2CA	CBCA	2.08	2.2	2.33	5	100	120	0.7
BZX84C2V4A	CCA	BZX84C2V4CA	CCCA	2.28	2.4	2.56	5	100	120	1
BZX84C2V7A	CDA	BZX84C2V7CA	CDCA	2.5	2.7	2.9	5	110	120	1
BZX84C3V0A	CEA	BZX84C3V0CA	CECA	2.8	3.0	3.2	5	120	50	1
BZX84C3V3A	CFA	BZX84C3V3CA	CFCA	3.1	3.3	3.5	5	130	20	1
BZX84C3V6A	CGA	BZX84C3V6CA	CGCA	3.4	3.6	3.8	5	130	10	1
BZX84C3V9A	CHA	BZX84C3V9CA	CHCA	3.7	3.9	4.1	5	130	5	1
BZX84C4V3A	CJA	BZX84C4V3CA	CJCA	4	4.3	4.6	5	130	5	1
BZX84C4V7A	CKA	BZX84C4V7CA	CKCA	4.4	4.7	5	5	130	2	1
BZX84C5V1A	CLA	BZX84C5V1CA	CLCA	4.8	5.1	5.4	5	130	2	1.5
BZX84C5V6A	CMA	BZX84C5V6CA	CMCA	5.2	5.6	6	5	80	1	2.5
BZX84C6V2A	CNA	BZX84C6V2CA	CNCA	5.8	6.2	6.6	5	50	1	3
BZX84C6V8A	CPA	BZX84C6V8CA	CPCA	6.4	6.8	7.2	5	30	0.5	3.5
BZX84C7V5A	CRA	BZX84C7V5CA	CRCA	7	7.5	7.9	5	30	0.5	4
BZX84C8V2A	CSA	BZX84C8V2CA	CSCA	7.7	8.2	8.7	5	30	0.5	5
BZX84C9V1A	CTA	BZX84C9V1CA	CTCA	8.5	9.1	9.6	5	30	0.5	6
BZX84C10A	CUA	BZX84C10CA	CUCA	9.4	10	10.6	5	30	0.1	7
BZX84C11A	CVA	BZX84C11CA	CVCA	10.4	11	11.6	5	30	0.1	8
BZX84C12A	CWA	BZX84C12CA	CWCA	11.4	12	12.7	5	35	0.1	9
BZX84C13A	CXA	BZX84C13CA	CXCA	12.4	13	14.1	5	35	0.1	10
BZX84C15A	CYA	BZX84C15CA	CYCA	13.8	15	15.6	5	40	0.1	11
BZX84C16A	CZA	BZX84C16CA	CZCA	15.3	16	17.1	5	40	0.1	12
BZX84C18A	C1A	BZX84C18CA	C1CA	16.8	18	19.1	5	45	0.1	13
BZX84C20A	C2A	BZX84C20CA	C2CA	18.8	20	21.2	5	50	0.1	15
BZX84C22A	C3A	BZX84C22CA	C3CA	20.8	22	23.3	5	55	0.1	17
BZX84C24A	C4A	BZX84C24CA	C4CA	22.8	24	25.6	5	60	0.1	19
BZX84C27A	C5A	BZX84C27CA	C5CA	25.1	27	28.9	5	70	0.1	21
BZX84C30A	C6A	BZX84C30CA	C6CA	28	30	32	5	80	0.1	23
BZX84C33A	C7A	BZX84C33CA	C7CA	31	33	35	5	80	0.1	25
BZX84C36A	C8A	BZX84C36CA	C8CA	34	36	38	5	90	0.1	27
BZX84C39A	C9A	BZX84C39CA	C9CA	37	39	41	2.5	100	2	30
BZX84C43A	4AA	BZX84C43CA	4ACA	40	43	46	2.5	130	2	33
BZX84C47A	4BA	BZX84C47CA	4BCA	44	47	50	2.5	150	2	36
BZX84C51A	4CA	BZX84C51CA	4CCA	48	51	54	2.5	180	1	39
BZX84C56A	4DA	BZX84C56CA	4DCA	52	56	60	2.5	180	1	43
BZX84C62A	4EA	BZX84C62CA	4ECA	58	6 2	66	2.5	200	0.2	47
BZX84C68A	4FA	BZX84C68CA	4FCA	64	68	72	2.5	250	0.2	52
BZX84C75A	4HA	BZX84C75CA	4HCA	70	75	79	2.5	300	0.2	57

(1) V_{ZT} is tested with pulses (20 ms)
(2) B:±2%
(3) C:±5%

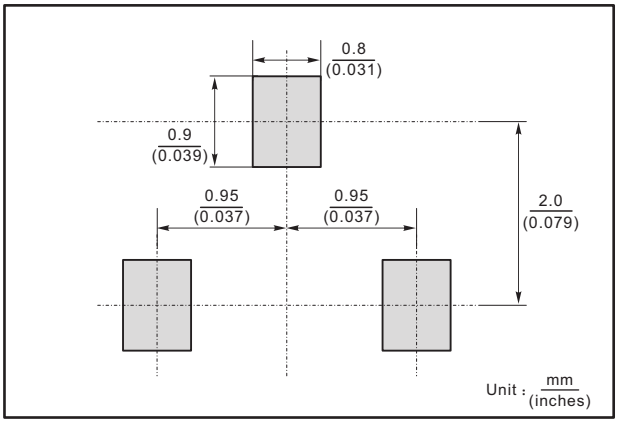
SOT-23 Package Outline Dimensions



SOT-23 mechanical data

UNIT		A	C	D	E	H_E	e	M	L	L_1	a	∠
mm	max	1.1	0.20	1.4	3.0	2.6	0.6	1.95	0.55 (ref)	0.36 (ref)	0.15	12°
	min	0.9	0.08	1.2	2.8	2.2	0.35	1.7			0.0	
mil	max	43	7.9	55	118	102	24	77	22 (ref)	14 (ref)	6	
	min	35	3.1	47	110	87	13	67			0.0	

The recommended mounting pad size



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