

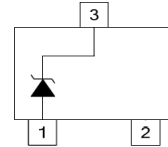
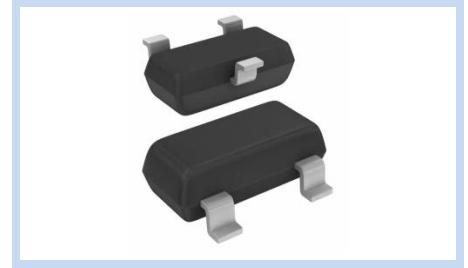
Zener Diodes SOT-23

BZX84B Series

MERITEK

FEATURE

- Zener Voltage Range: 2.4V to 51V
- Power Dissipation: 300mW
- Small Package Size for High Density Applications
- Application: Power Management Systems, Voltage Regulation



MECHANICAL DATA

- Case: SOT-23, Molded Plastic
- Terminals: Solderable Per MIL-STD-750, Method 2026



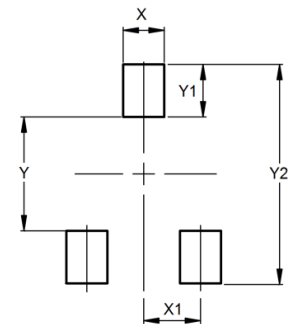
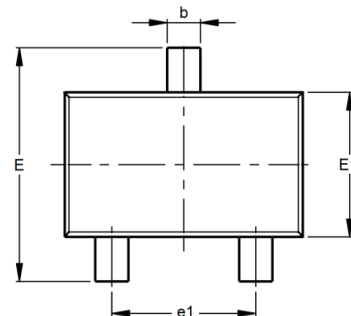
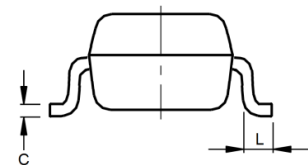
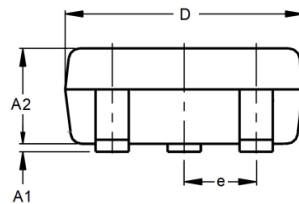
ABSOLUTE MAXIMUM RATINGS

Parameter	Symbols	Value	Unit
Power Dissipation	P_D	300	mW
Forward Voltage at $I_F=10mA$	V_F	0.9	V
Resistance Junction to Ambient	$R_{\theta JA}$	417	$^{\circ}C/W$
Junction Temperature Range	T_J	-65~+150	$^{\circ}C$
Storage Temperature Range	T_{STG}	-65~+150	$^{\circ}C$

Note: $T_A=25^{\circ}C$ unless otherwise noted

DIMENSIONS AND RECOMMENDED LAND PATTERN

Item	Min (mm)	Max (mm)
A1	0.00	0.10
A2	0.90	1.10
b	0.35	0.50
C	0.05	0.20
D	2.70	3.10
e	0.85	1.05
e1	1.70	2.10
E	2.20	2.60
E1	1.20	1.40
L	0.15	--
X	0.80	0.80
X1	0.95	0.95
Y	1.10	1.10
Y1	0.90	0.90
Y2	2.90	2.90



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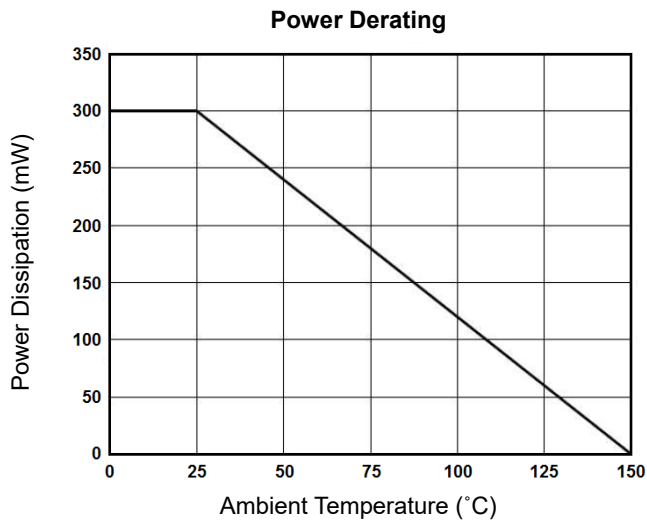
ELECTRICAL CHARACTERISTICS

Part Number	Nominal Zener Voltage V_Z at I_{ZT}			Max Zener Impedance		Max Reverse Leakage Current	
	Nom	Min	Max	Z_{ZT} at I_{ZT}	I_{ZT}	I_R at V_R	
	(V)	(V)	(V)	(Ω)	(mA)	(μ A)	(V)
BZX84B2V4	2.4	2.35	2.45	100	5	50	1.0
BZX84B2V7	2.7	2.65	2.75	100	5	20	1.0
BZX84B3V0	3.0	2.94	3.06	95	5	10	1.0
BZX84B3V3	3.3	3.23	3.37	95	5	5.0	1.0
BZX84B3V6	3.6	3.53	3.67	90	5	5.0	1.0
BZX84B3V9	3.9	3.82	3.98	90	5	3.0	1.0
BZX84B4V3	4.3	4.21	4.39	90	5	3.0	1.0
BZX84B4V7	4.7	4.61	4.79	80	5	3.0	2.0
BZX84B5V1	5.1	5.00	5.20	60	5	2.0	2.0
BZX84B5V6	5.6	5.49	5.71	40	5	1.0	2.0
BZX84B6V2	6.2	6.08	6.32	10	5	3.0	4.0
BZX84B6V8	6.8	6.66	6.94	15	5	2.0	4.0
BZX84B7V5	7.5	7.35	7.65	15	5	1.0	5.0
BZX84B8V2	8.2	8.04	8.36	15	5	0.7	5.0
BZX84B9V1	9.1	8.92	9.28	15	5	0.5	6.0
BZX84B10	10	9.80	10.2	20	5	0.2	7.0
BZX84B11	11	10.8	11.2	20	5	0.1	8.0
BZX84B12	12	11.8	12.2	25	5	0.1	8.0
BZX84B13	13	12.7	13.3	30	5	0.1	8.0
BZX84B15	15	14.7	15.3	30	5	0.05	10.5
BZX84B16	16	15.7	16.3	40	5	0.05	11.2
BZX84B18	18	17.6	18.4	45	5	0.05	12.6
BZX84B20	20	19.6	20.4	55	5	0.05	14.0
BZX84B22	22	21.6	22.4	55	5	0.05	15.4
BZX84B24	24	23.5	24.5	70	5	0.05	16.8
BZX84B27	27	26.5	27.5	80	2	0.05	18.9
BZX84B30	30	29.4	30.6	80	2	0.05	21.0
BZX84B33	33	32.3	33.7	80	2	0.05	23.1
BZX84B36	36	35.3	36.7	90	2	0.05	25.2
BZX84B39	39	38.2	39.8	130	2	0.05	27.3
BZX84B43	43	42.1	43.9	150	2	0.05	30.1
BZX84B47	47	46.1	47.9	170	2	0.05	32.9
BZX84B51	51	50.0	52.0	180	2	0.05	35.7

Note:

1. $T_A = 25^\circ\text{C}$ unless otherwise noted
2. Alumina=0.4x0.3x0.024inch, 99.5% alumina
3. The Zener Voltage (V_Z) is tested with pulses $t_p=20\text{ms}$.

CHARACTERISTIC CURVES



*Specifications subject to change without notice.