

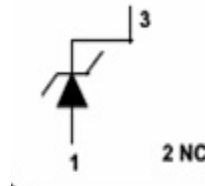
BZX84Bx Series

Surface Mount Zener Diodes

Vz Range: 2.4 to 51V Power Dissipation: 350mW

Features

- Total Power Dissipation: Max. 350 mW
- Working Voltage Range: Nom. 2.4V to 51V
- Zener Tolerance: 2%
- Planar Die Construction



Schematic Diagram



Package: SOT-23

Absolute Maximum Ratings

($T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Power Dissipation	P_D	350	mW
Thermal Resistance, Junction to Ambient Air	$R_{\theta JA}$	357	$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to +150	$^\circ\text{C}$



Electrical Characteristics

($T_A=25^\circ\text{C}$ unless otherwise noted)

Type Number	Marking Code	Zener Voltage Range				Maximum Zener Impedance			Maximum Reverse Current	
		$V_Z@I_{ZT}$			I_{ZT}	$Z_{ZT}@I_{ZT}$	$Z_{ZK}@I_{ZK}$		I_R	V_R
		Nom(V)	Min(V)	Max(V)	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)
BZX84B2V4	Z50	2.4	2.35	2.45	5	100	275	1	50	1
BZX84B2V7	Z51	2.7	2.65	2.75	5	100	600	1	20	1
BZX84B3V0	Z52	3.0	2.94	3.06	5	95	600	1	10	1
BZX84B3V3	Z53	3.3	3.23	3.37	5	95	600	1	5	1
BZX84B3V6	Z54	3.6	3.53	3.67	5	90	600	1	5	1
BZX84B3V9	Z55	3.9	3.82	3.98	5	90	600	1	3	1
BZX84B4V3	Z56	4.3	4.21	4.39	5	90	600	1	3	1
BZX84B4V7	Z57	4.7	4.61	4.79	5	80	500	1	3	2

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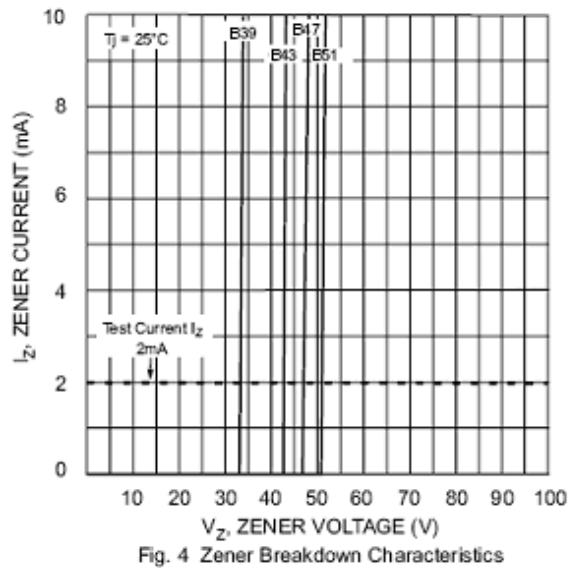
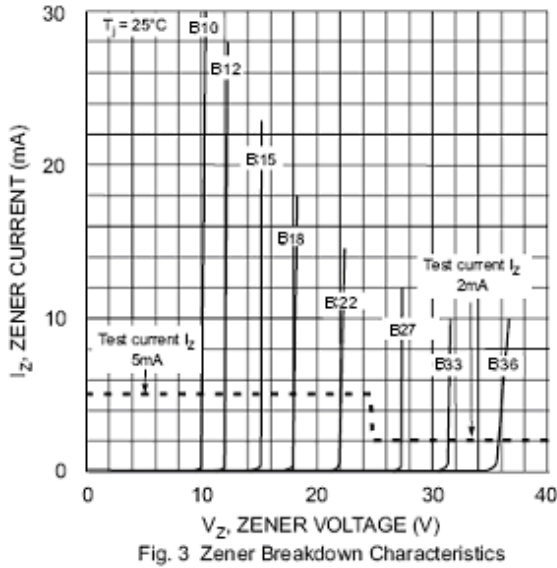
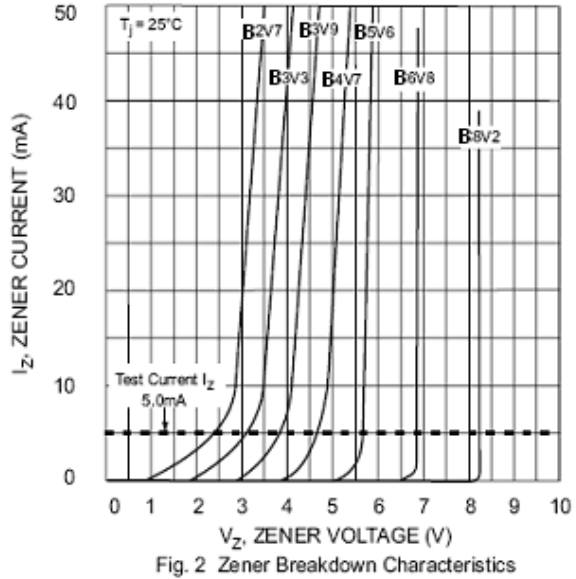
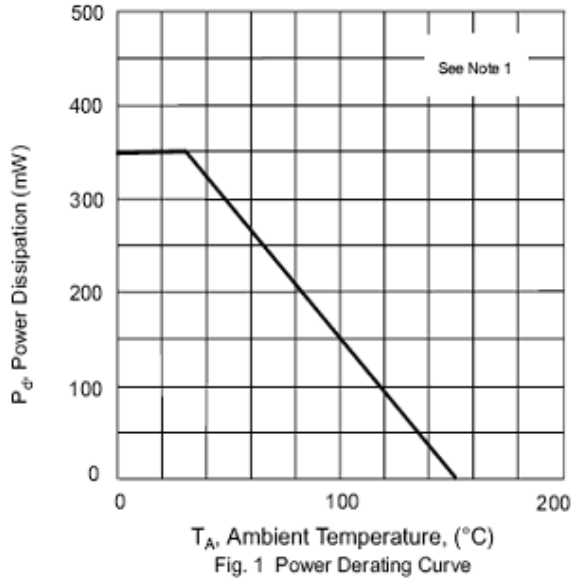
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Electrical Characteristics (T_A=25°C unless otherwise noted)

Type Number	Marking Code	Zener Voltage Range				Maximum Zener Impedance			Maximum Reverse Current	
		V _Z @I _{ZT}			I _{ZT}	Z _{ZT} @I _{ZT}	Z _{ZK} @I _{ZK}		I _R	V _R
		Nom(V)	Min(V)	Max(V)	(mA)	(Ω)	(Ω)	(mA)	(μA)	(V)
BZX84B5V1	Z58	5.1	5	5.2	5	60	480	1	2	2
BZX84B5V6	Z59	5.6	5.49	5.71	5	40	400	1	1	2
BZX84B6V2	Z60	6.2	6.08	6.32	5	10	150	1	3	4
BZX84B6V8	Z61	6.8	6.66	6.94	5	15	80	1	2	4
BZX84B7V5	Z62	7.5	7.35	7.65	5	15	80	1	1	5
BZX84B8V2	Z63	8.2	8.04	8.36	5	15	80	1	0.7	5
BZX84B9V1	Z64	9.1	8.92	9.28	5	15	100	1	0.5	6
BZX84B10	Z65	10	9.8	10.2	5	20	150	1	0.2	7
BZX84B11	Z66	11	10.8	11.2	5	20	150	1	0.1	8
BZX84B12	Z67	12	11.8	12.2	5	25	150	1	0.1	8
BZX84B13	Z68	13	12.7	13.3	5	30	170	1	0.1	8
BZX84B15	Z69	15	14.7	15.3	5	30	200	1	0.05	10.5
BZX84B16	Z70	16	15.7	16.3	5	40	200	1	0.05	11.2
BZX84B18	Z71	18	17.6	18.4	5	45	225	1	0.05	12.6
BZX84B20	Z72	20	19.6	20.4	5	55	225	1	0.05	14
BZX84B22	Z73	22	21.6	22.4	5	55	250	1	0.05	15.4
BZX84B24	Z74	24	23.5	24.5	5	70	250	1	0.05	16.8
BZX84B27	Z75	27	26.5	27.5	2	80	300	0.5	0.05	18.9
BZX84B30	Z76	30	29.4	30.6	2	80	300	0.5	0.05	21
BZX84B33	Z77	33	32.3	33.7	2	80	325	0.5	0.05	23.1
BZX84B36	Z78	36	35.3	36.7	2	90	350	0.5	0.05	25.2
BZX84B39	Z79	39	38.2	39.8	2	130	350	0.5	0.05	27.3
BZX84B43	Z80	43	42.1	43.9	2	150	375	0.5	0.05	30.1
BZX84B47	Z81	47	46.1	47.9	2	170	375	0.5	0.05	32.9
BZX84B51	Z82	51	50	52	2	180	400	0.5	0.05	35.7

Typical Electrical Characteristic Curves



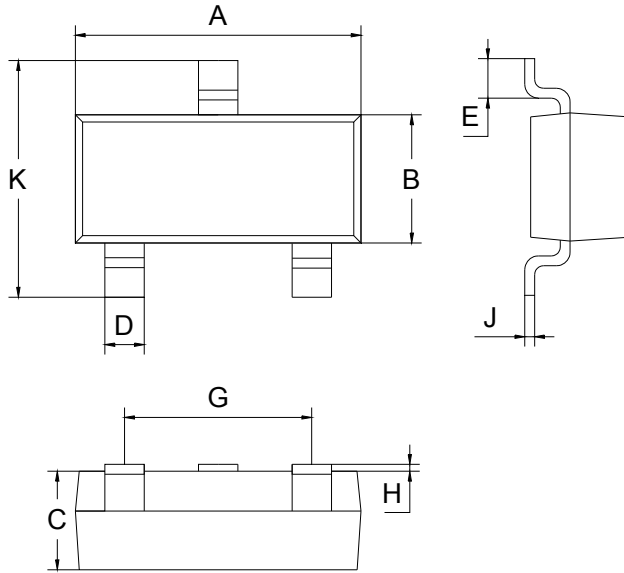
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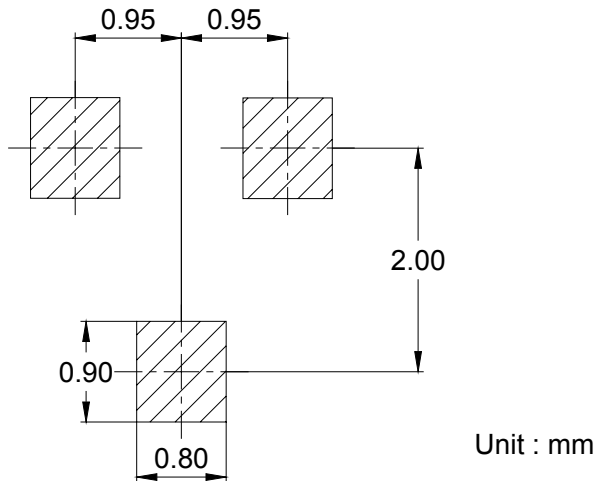
Package Outline Dimensions

SOT-23



(All dimensions in mm)		
Dim	M	Max
A	2.70	3.10
B	1.10	1.50
C	1.0 Typical	
D	0.4 Typical	
E	0.35	0.48
G	1.80	2.00
H	0.02	0.1
J	0.1 Typical	
K	2.20	2.60
All Dimensions in mm		

Recommended Mounting Pad



Unit : mm