Zener Voltage Regulators

225 mW SOT-23 Surface Mount

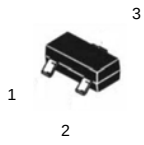
BZX84BxxL Series
S-BZX84BxxL Series

FEATURES

- Non-wire bonding structure improves
- High demand voltage range (3.6V-36V)
- This is a Pb-Free device
- We declare that the material of product compliance with RoHS requirements.
- S- Prefix for Automotive and Other Applications Requiring Unique Site and Control Change Requirements; AEC-Q101 Qualified and PPAP Capable.

CONSTRUCTION

- Silicon epitaxial planar



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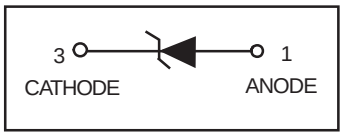

ORDERING INFORMATION

Device	Package	Shipping
BZX84BxxL Series	SOT-23	3000/Tape&Reel

ABSOLUTE MAXIMUM TATINGS (Ta=25°C)

Parameter	Symbol	Limits	Unit
Power dissipation	P	225	mW
Junction temperature	Tj	+150	°C
Storage temperature	Tstg	–55 to +150	°C
Operating temperature	Topr	–55 to +150	°C

DEVICE MARKING CODE

Device	Marking	Device	Marking	Device	Marking
BZX84B2V0L	02	BZX84B5V6L	C2	BZX84B16L	55
BZX84B2V2L	12	BZX84B6V2L	E2	BZX84B18L	65
BZX84B2V4L	22	BZX84B6V8L	F2	BZX84B20L	75
BZX84B2V7L	32	BZX84B7V5L	H2	BZX84B22L	85
BZX84B3V0L	42	BZX84B8V2L	J2	BZX84B24L	95
BZX84B3V3L	52	BZX84B9V1L	L2	BZX84B27L	A5
BZX84B3V6L	62	BZX84B10L	05	BZX84B30L	C5
BZX84B3V9L	72	BZX84B11L	15	BZX84B33L	E5
BZX84B4V3L	82	BZX84B12L	25	BZX84B36L	F5
BZX84B4V7L	92	BZX84B13L	35	–	–
BZX84B5V1L	A2	BZX84B15L	45	–	–

LBZX84B2V0L Series , S-LBZX84B2V0L Series

ELECTRICAL CHARACTERISTICS (Ta=25°C)

Device	Zener voltage			Operating resistance		Rising operating resistance		Reverse current	
	V_Z(V)			Z_Z(Ω)		Z_{zk}(Ω)		I_R(μA)	
	Min.	Max.	I_Z (mA)	Max.	I_Z (mA)	Max.	I_Z (mA)	Max.	V_R (V)
BZX84B2V0L	2.020	2.200	5	100	5	1000	0.5	120	0.5
BZX84B2V2L	2.220	2.410	5	100	5	1000	0.5	120	0.7
BZX84B2V4L	2.430	2.630	5	100	5	1000	0.5	100	1.0
BZX84B2V7L	2.690	2.910	5	110	5	1000	0.5	100	1.0
BZX84B3V0L	3.010	3.220	5	120	5	1000	0.5	50	1.0
BZX84B3V3L	3.320	3.530	5	120	5	1000	0.5	20	1.0
BZX84B3V6L	3.600	3.845	5	100	5	1000	1.0	10	1.0
BZX84B3V9L	3.890	4.160	5	100	5	1000	1.0	5	1.0
BZX84B4V3L	4.170	4.430	5	100	5	1000	1.0	5	1.0
BZX84B4V7L	4.550	4.750	5	100	5	800	0.5	2	1.0
BZX84B5V1L	4.980	5.200	5	80	5	500	0.5	2	1.5
BZX84B5V6L	5.490	5.730	5	60	5	200	0.5	1	2.5
BZX84B6V2L	6.060	6.330	5	60	5	100	0.5	1	3.0
BZX84B6V8L	6.650	6.930	5	40	5	60	0.5	0.5	3.5
BZX84B7V5L	7.280	7.600	5	30	5	60	0.5	0.5	4.0
BZX84B8V2L	8.020	8.360	5	30	5	60	0.5	0.5	5.0
BZX84B9V1L	8.850	9.230	5	30	5	60	0.5	0.5	6.0
BZX84B10L	9.770	10.210	5	30	5	60	0.5	0.1	7.0
BZX84B11L	10.760	11.220	5	30	5	60	0.5	0.1	8.0
BZX84B12L	11.740	12.240	5	30	5	80	0.5	0.1	9.0
BZX84B13L	12.910	13.490	5	37	5	80	0.5	0.1	10.0
BZX84B15L	14.340	14.980	5	42	5	80	0.5	0.1	11.0
BZX84B16L	15.850	16.510	5	50	5	80	0.5	0.1	12.0
BZX84B18L	17.560	18.350	5	65	5	80	0.5	0.1	13.0
BZX84B20L	19.520	20.390	5	85	5	100	0.5	0.1	15.0
BZX84B22L	21.540	22.470	5	100	5	100	0.5	0.1	17.0
BZX84B24L	23.720	24.780	5	120	5	120	0.5	0.1	19.0
BZX84B27L	26.190	27.530	5	150	5	150	0.5	0.1	21.0
BZX84B30L	29.190	30.690	5	200	5	200	0.5	0.1	23.0
BZX84B33L	32.150	33.790	5	250	5	250	0.5	0.1	25.0
BZX84B36L	35.070	36.870	5	300	5	300	0.5	0.1	27.0

Notes) 1. The Zener voltage (V_Z) is measured 40ms after power is supplied.
2. The operating resistances (Z_Z, Z_{ZK}) are measured by superimposing a minute alternating current on the regulated current (I_Z).

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ELECTRICAL CHARACTERISTIC CURVES (Ta=25°C)

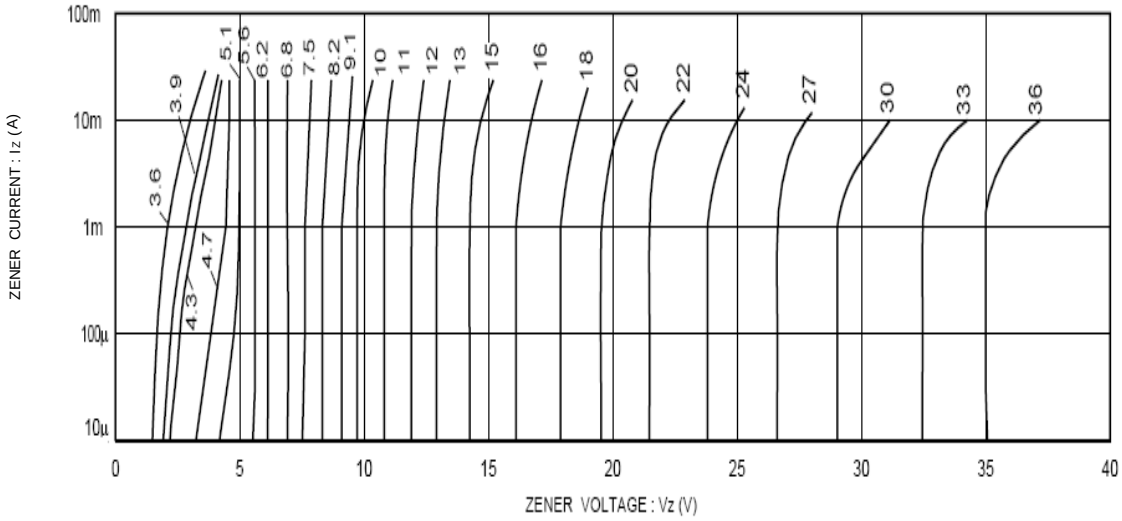


Fig.1 Zener voltage characteristics

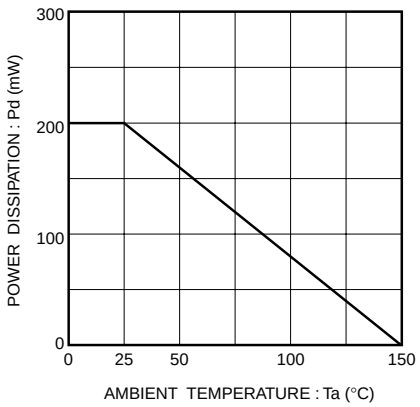


Fig.2 Derating curve

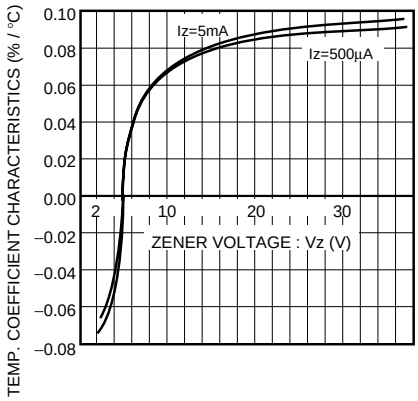
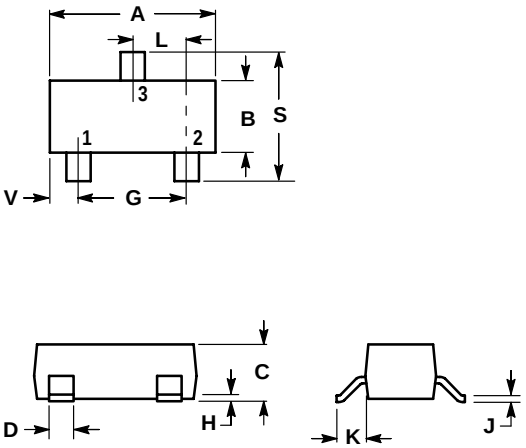


Fig.3 Zener voltage-temp. coefficient characteristics

BZX84BxxL Series , S-BZX84BxxL Series

SOT−23



NOTES:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M,1982
2. CONTROLLING DIMENSION: INCH.

DIM	INCHES		MILLIMETERS	
	MIN	MAX	MIN	MAX
A	0.1102	0.1197	2.80	3.04
B	0.0472	0.0551	1.20	1.40
C	0.0350	0.0440	0.89	1.11
D	0.0150	0.0200	0.37	0.50
G	0.0701	0.0807	1.78	2.04
H	0.0005	0.0040	0.013	0.100
J	0.0034	0.0070	0.085	0.177
K	0.0140	0.0285	0.35	0.69
L	0.0350	0.0401	0.89	1.02
S	0.0830	0.1039	2.10	2.64
V	0.0177	0.0236	0.45	0.60

PIN 1. BASE
2. EMITTER
3. COLLECTOR