Zener Voltage Regulators

225 mW SOT-23 Surface Mount

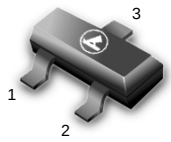
LBZX84B2V0LT1G Series
S-LBZX84B2V0LT1G Series

FEATURES

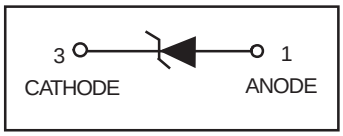
- Non-wire bonding structure improves
- High demand voltage range (3.6V-36V)
- This is a Pb-Free device
- We declare that the material of product compliance with RoHS requirements.
- S- Prefix for Automotive and Other Applications Requiring Unique Site and Control Change Requirements; AEC-Q101 Qualified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

CONSTRUCTION

- Silicon epitaxial planar



SOT– 23



ORDERING INFORMATION

Device	Package	Shipping
LBZX84B2V0LT1G Series	SOT-23	3000/Tape&Reel
LBZX84B2V0LT3G Series	SOT-23	10000/Tape&Reel

*See specific marking table.

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
LBZX84B2V0LT1G	02	LBZX84B5V6LT1G	C2	LBZX84B16LT1G	55
LBZX84B2V2LT1G	12	LBZX84B6V2LT1G	E2	LBZX84B18LT1G	65
LBZX84B2V4LT1G	22	LBZX84B6V8LT1G	F2	LBZX84B20LT1G	75
LBZX84B2V7LT1G	32	LBZX84B7V5LT1G	H2	LBZX84B22LT1G	85
LBZX84B3V0LT1G	42	LBZX84B8V2LT1G	J2	LBZX84B24LT1G	95
LBZX84B3V3LT1G	52	LBZX84B9V1LT1G	L2	LBZX84B27LT1G	A5
LBZX84B3V6LT1G	62	LBZX84B10LT1G	05	LBZX84B30LT1G	C5
LBZX84B3V9LT1G	72	LBZX84B11LT1G	15	LBZX84B33LT1G	E5
LBZX84B4V3LT1G	82	LBZX84B12LT1G	25	LBZX84B36LT1G	F5
LBZX84B4V7LT1G	92	LBZX84B13LT1G	35	–	–
LBZX84B5V1LT1G	A2	LBZX84B15LT1G	45	–	–

LBZX84B2V0LT1G Series , S-LBZX84B2V0LT1G 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)
LBZX84B2V0LT1G	2.020	2.200	5	100	5	1000	0.5	120	0.5
LBZX84B2V2LT1G	2.220	2.410	5	100	5	1000	0.5	120	0.7
LBZX84B2V4LT1G	2.430	2.630	5	100	5	1000	0.5	100	1.0
LBZX84B2V7LT1G	2.690	2.910	5	110	5	1000	0.5	100	1.0
LBZX84B3V0LT1G	3.010	3.220	5	120	5	1000	0.5	50	1.0
LBZX84B3V3LT1G	3.320	3.530	5	120	5	1000	0.5	20	1.0
LBZX84B3V6LT1G	3.600	3.845	5	100	5	1000	1.0	10	1.0
LBZX84B3V9LT1G	3.890	4.160	5	100	5	1000	1.0	5	1.0
LBZX84B4V3LT1G	4.170	4.430	5	100	5	1000	1.0	5	1.0
LBZX84B4V7LT1G	4.550	4.750	5	100	5	800	0.5	2	1.0
LBZX84B5V1LT1G	4.980	5.200	5	80	5	500	0.5	2	1.5
LBZX84B5V6LT1G	5.490	5.730	5	60	5	200	0.5	1	2.5
LBZX84B6V2LT1G	6.060	6.330	5	60	5	100	0.5	1	3.0
LBZX84B6V8LT1G	6.650	6.930	5	40	5	60	0.5	0.5	3.5
LBZX84B7V5LT1G	7.280	7.600	5	30	5	60	0.5	0.5	4.0
LBZX84B8V2LT1G	8.020	8.360	5	30	5	60	0.5	0.5	5.0
LBZX84B9V1LT1G	8.850	9.230	5	30	5	60	0.5	0.5	6.0
LBZX84B10LT1G	9.770	10.210	5	30	5	60	0.5	0.1	7.0
LBZX84B11LT1G	10.760	11.220	5	30	5	60	0.5	0.1	8.0
LBZX84B12LT1G	11.740	12.240	5	30	5	80	0.5	0.1	9.0
LBZX84B13LT1G	12.910	13.490	5	37	5	80	0.5	0.1	10.0
LBZX84B15LT1G	14.340	14.980	5	42	5	80	0.5	0.1	11.0
LBZX84B16LT1G	15.850	16.510	5	50	5	80	0.5	0.1	12.0
LBZX84B18LT1G	17.560	18.350	5	65	5	80	0.5	0.1	13.0
LBZX84B20LT1G	19.520	20.390	5	85	5	100	0.5	0.1	15.0
LBZX84B22LT1G	21.540	22.470	5	100	5	100	0.5	0.1	17.0
LBZX84B24LT1G	23.720	24.780	5	120	5	120	0.5	0.1	19.0
LBZX84B27LT1G	26.190	27.530	5	150	5	150	0.5	0.1	21.0
LBZX84B30LT1G	29.190	30.690	5	200	5	200	0.5	0.1	23.0
LBZX84B33LT1G	32.150	33.790	5	250	5	250	0.5	0.1	25.0
LBZX84B36LT1G	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).

LBZX84B2V0LT1G Series , S-LBZX84B2V0LT1G Series

ELECTRICAL CHARACTERISTIC CURVES (Ta=25°C)

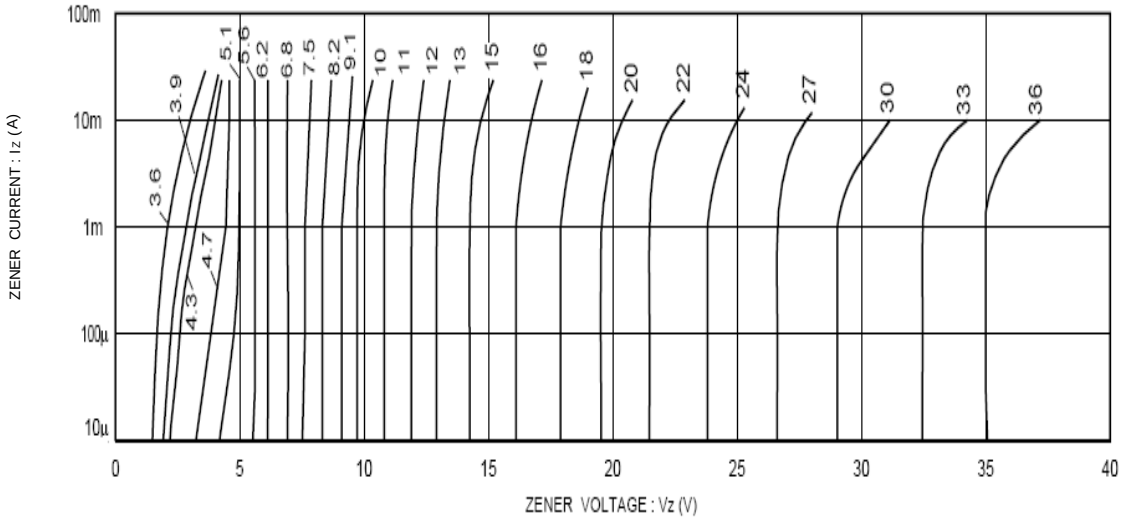


Fig.1 Zener voltage characteristics

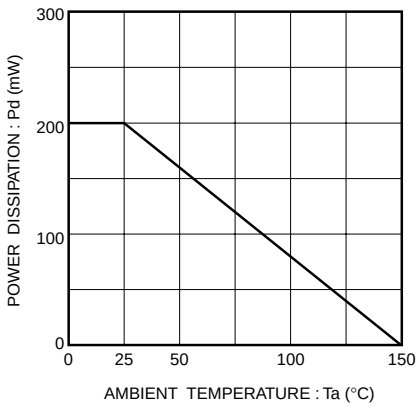


Fig.2 Derating curve

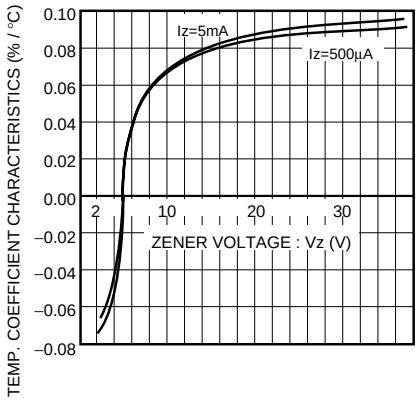
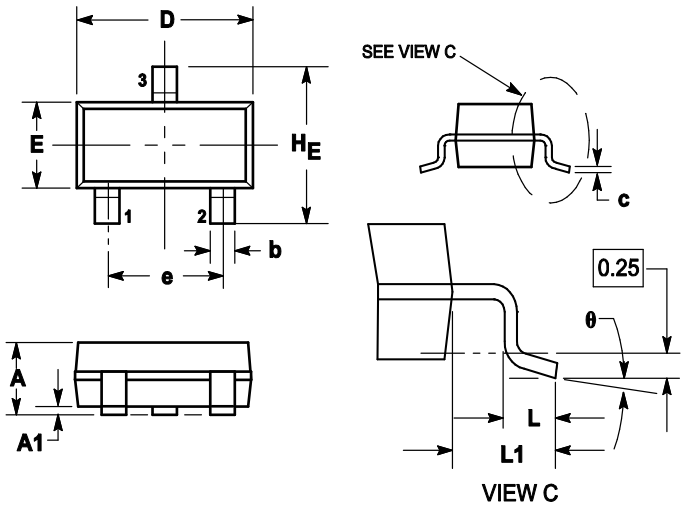


Fig.3 Zener voltage-temp. coefficient characteristics

LBZX84B2V0LT1G Series , S-LBZX84B2V0LT1G Series

OUTLINE AND DIMENSIONS

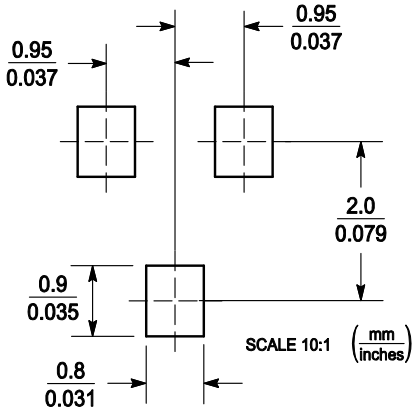


Notes:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: MILLIMETERS.
3. MAXIMUM LEAD THICKNESS INCLUDES LEAD FINISH. MINIMUM LEAD THICKNESS IS THE MINIMUM THICKNESS OF BASE MATERIAL.
4. DIMENSIONS D AND E DO NOT INCLUDE MOLD FLASH, PROTRUSIONS OR GATE BURRS.

	MILLIMETERS			INCHES		
DIM	MIN	NOM	MAX	MIN	NOM	MAX
A	0.89	1	1.11	0.035	0.04	0.044
A1	0.01	0.06	0.1	0.001	0.002	0.004
b	0.37	0.44	0.5	0.015	0.018	0.02
c	0.09	0.13	0.18	0.003	0.005	0.007
D	2.80	2.9	3.04	0.11	0.114	0.12
E	1.20	1.3	1.4	0.047	0.051	0.055
e	1.78	1.9	2.04	0.07	0.075	0.081
L	0.10	0.2	0.3	0.004	0.008	0.012
L1	0.35	0.54	0.69	0.014	0.021	0.029
H_E	2.10	2.4	2.64	0.083	0.094	0.104
θ	0°	---	10°	0°	---	10°

SOLDERING FOOTPRINT



DISCLAIMER

- Curve guarantee in the specification. The curve of test items with electric parameter is used as quality guarantee. The curve of test items without electric parameter is used as reference only.

- Before you use our Products for new Project, you are requested to carefully read this document and fully under--stand its contents. LRC shall not be in any way responsible or liable for failure, malfunction or accident arising from the use of any LRC's Products against warning, caution or note contained in this document.

- All information contained in this document is current as of the issuing date and subject to change without any prior notice. Before purchasing or using LRC's Products,please confirm the latest information with a LRC sales represe--ntative.