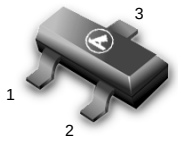
Zener Voltage Regulator Diodes

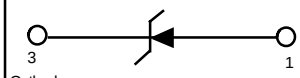
LBZX84C2V4LT1G Series

S-LBZX84C2V4LT1G Series

- 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



SOT– 23 (TO–236AB)
PLASTIC



MAXIMUM CASE TEMPERATURE FOR SOLDERING PURPOSES: 260°C for 10 seconds

THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Total Device Dissipation FR-5 Board(Note 1) T_A = 25°C	P_D	225	mW
Derate above 25°C		1.8	mW/°C
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	556	°C/W
Total Device Dissipation Alumina Substrate (Note 2),T_A = 25°C	P_D	300	mW
Derate above 25°C		2.4	mW/°C
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	417	°C/W
Junction and Storage Temeprature	T_J , T_{stg}	-55to+150	°C

Note 1. FR-5 = 1.0 x 0.75 x 0.62 in.

Note 2.Alumina = 0.4 x 0.3 x 0.024 in. 99.5% alumina.

Ordering Information

Device	Package	Shipping
LBZX84C2V4LT1G Series	SOT-23	3000/Tape&Reel
LBZX84C2V4LT3G Series	SOT-23	10000/Tape&Reel

ELECTRICAL CHARACTERISTICS − BZX84CxxxLT1 SERIES (STANDARD TOLERANCE)

(Pinout: 1-Anode, 2-No Connection, 3-Cathode) (T_A = 25°C unless otherwise noted, V_F = 0.90 V Max. @ I_F = 10 mA)

Device*	Device Marking	V_{Z1} (Volts) @ I_{ZT1} = 5 mA (Note 3)			Z_{ZT1} (Ω) @ I_{ZT1} = 5 mA	V_{Z2} (V) @ I_{ZT2} = 1 mA (Note 3)		Z_{ZT2} (Ω) @ I_{ZT2} = 1 mA	V_{Z3} (V) @ I_{ZT3} = 20 mA (Note 3)		Z_{ZT3} (Ω) @ I_{ZT3} = 20 mA	Max Reverse Leakage Current		C (pF) @ V_R = 0 f = 1 MHz
		Min	Nom	Max		Min	Max		Min	Max		I_R μA	@ V_R Volts	
LBZX84C2V4LT1G	Z11	2.2	2.4	2.6	100	1.7	2.1	600	2.6	3.2	50	50	1	450
LBZX84C2V7LT1G	Z12	2.5	2.7	2.9	100	1.9	2.4	600	3	3.6	50	20	1	450
LBZX84C3V0LT1G	Z13	2.8	3	3.2	95	2.1	2.7	600	3.3	3.9	50	10	1	450
LBZX84C3V3LT1G	Z14	3.1	3.3	3.5	95	2.3	2.9	600	3.6	4.2	40	5	1	450
LBZX84C3V6LT1G	Z15	3.4	3.6	3.8	90	2.7	3.3	600	3.9	4.5	40	5	1	450
LBZX84C3V9LT1G	Z16	3.7	3.9	4.1	90	2.9	3.5	600	4.1	4.7	30	3	1	450
LBZX84C4V3LT1G	W9	4	4.3	4.6	90	3.3	4	600	4.4	5.1	30	3	1	450
LBZX84C4V7LT1G	***Z1***	***4.4***	***4.7***	***5***	***80***	***3.7***	***4.7***	***500***	***4.5***	***5.4***	***15***	***3***	***2***	***260***
LBZX84C5V1LT1G	***Z2***	***4.8***	***5.1***	***5.4***	***60***	***4.2***	***5.3***	***480***	***5***	***5.9***	***15***	***2***	***2***	***225***
LBZX84C5V6LT1G	***Z3***	***5.2***	***5.6***	***6***	***40***	***4.8***	***6***	***400***	***5.2***	***6.3***	***10***	***1***	***2***	***200***
LBZX84C6V2LT1G	***Z4***	***5.8***	***6.2***	***6.6***	***10***	***5.6***	***6.6***	***150***	***5.8***	***6.8***	***6***	***3***	***4***	***185***
LBZX84C6V8LT1G	Z5	6.4	6.8	7.2	15	6.3	7.2	80	6.4	7.4	6	2	4	155
LBZX84C7V5LT1G	Z6	7	7.5	7.9	15	6.9	7.9	80	7	8	6	1	5	140
LBZX84C8V2LT1G	Z7	7.7	8.2	8.7	15	7.6	8.7	80	7.7	8.8	6	0.7	5	135
LBZX84C9V1LT1G	Z8	8.5	9.1	9.6	15	8.4	9.6	100	8.5	9.7	8	0.5	6	130
LBZX84C10LT1G	Z9	9.4	10	10.6	20	9.3	10.6	150	9.4	10.7	10	0.2	7	130
LBZX84C11LT1G	Y1	10.4	11	11.6	20	10.2	11.6	150	10.4	11.8	10	0.1	8	130
LBZX84C12LT1G	***Y2***	***11.4***	***12***	***12.7***	***25***	***11.2***	***12.7***	***150***	***11.4***	***12.9***	***10***	***0.1***	***8***	***130***
LBZX84C13LT1G	Y3	12.4	13	14.1	30	12.3	14	170	12.5	14.2	15	0.1	8	120
LBZX84C15LT1G	Y4	13.8	15	15.6	30	13.7	15.5	200	13.9	15.7	20	0.05	10.5	110
LBZX84C16LT1G	Y5	15.3	16	17.1	40	15.2	17	200	15.4	17.2	20	0.05	11.2	105
LBZX84C18LT1G	***Y6***	***16.8***	***18***	***19.1***	***45***	***16.7***	***19***	***225***	***16.9***	***19.2***	***20***	***0.05***	***12.6***	***100***
LBZX84C20LT1G	Y7	18.8	20	21.2	55	18.7	21.1	225	18.9	21.4	20	0.05	14	85
LBZX84C22LT1G	Y8	20.8	22	23.3	55	20.7	23.2	250	20.9	23.4	25	0.05	15.4	85
LBZX84C24LT1G	Y9	22.8	24	25.6	70	22.7	25.5	250	22.9	25.7	25	0.05	16.8	80

Device	Device Marking	V_{Z1} Below @ I_{ZT1} = 2 mA			Z_{ZT1} Below @ I_{ZT1} = 2 mA	V_{Z2} Below @ I_{ZT2} = 0.1 m-A		Z_{ZT2} Below @ I_{ZT4} = 0.5 mA	V_{Z3} Below @ I_{ZT3} = 10 mA		Z_{ZT3} Below @ I_{ZT3} = 10 mA	Max Reverse Leakage Current		C (pF) @ V_R = 0 f = 1 MHz
		Min	Nom	Max		Min	Max		Min	Max		I_R μA	@ V_R (V)	
LBZX84C27LT1G	Y10	25.1	27	28.9	80	25	28.9	300	25.2	29.3	45	0.05	18.9	70
LBZX84C30LT1G	Y11	28	30	32	80	27.8	32	300	28.1	32.4	50	0.05	21	70
LBZX84C33LT1G	Y12	31	33	35	80	30.8	35	325	31.1	35.4	55	0.05	23.1	70
LBZX84C36LT1G	Y13	34	36	38	90	33.8	38	350	34.1	38.4	60	0.05	25.2	70
LBZX84C39LT1G	Y14	37	39	41	130	36.7	41	350	37.1	41.5	70	0.05	27.3	45
LBZX84C43LT1G	Y15	40	43	46	150	39.7	46	375	40.1	46.5	80	0.05	30.1	40
LBZX84C47LT1G	Y16	44	47	50	170	43.7	50	375	44.1	50.5	90	0.05	32.9	40
LBZX84C51LT1G	Y17	48	51	54	180	47.6	54	400	48.1	54.6	100	0.05	35.7	40
LBZX84C56LT1G	Y18	52	56	60	200	51.5	60	425	52.1	60.8	110	0.05	39.2	40
LBZX84C62LT1G	Y19	58	62	66	215	57.4	66	450	58.2	67	120	0.05	43.4	35
LBZX84C68LT1G	Y20	64	68	72	240	63.4	72	475	64.2	73.2	130	0.05	47.6	35
LBZX84C75LT1G	Y21	70	75	79	255	69.4	79	500	70.3	80.2	140	0.05	52.5	35

Note 3.Zener voltage is measured with a pulse test current I_Z at an ambient temperature of 25°C.

TYPICAL CHARACTERISICS

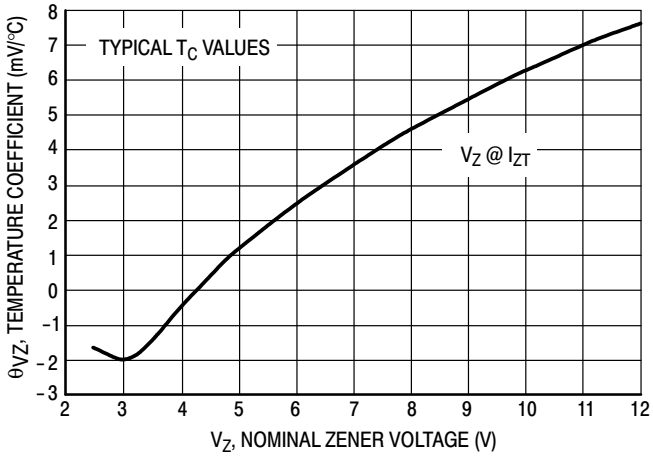


Figure 1. Temperature Coefficients (Temperature Range −55°C to +150°C)

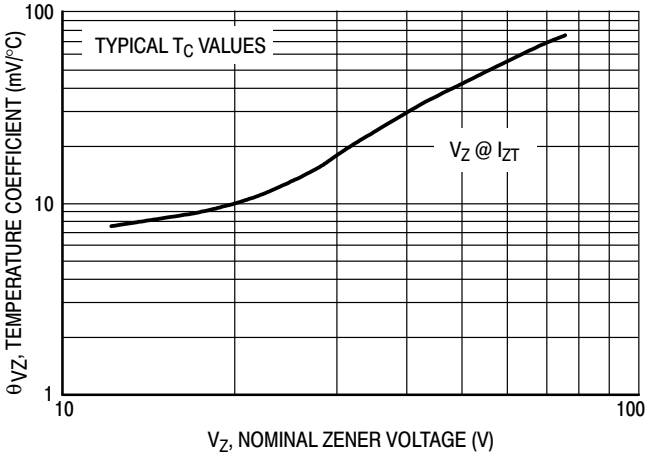


Figure 2. Temperature Coefficients (Temperature Range −55°C to +150°C)

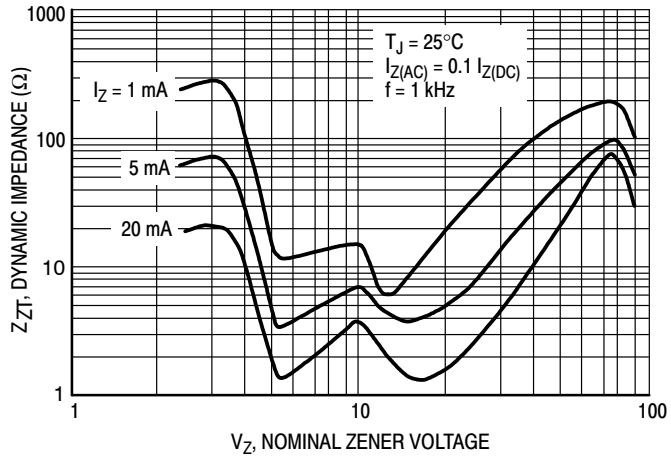


Figure 3. Effect of Zener Voltage on Zener Impedance

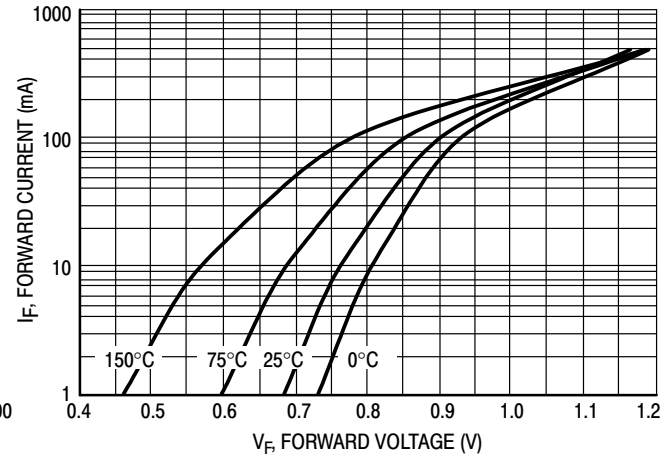
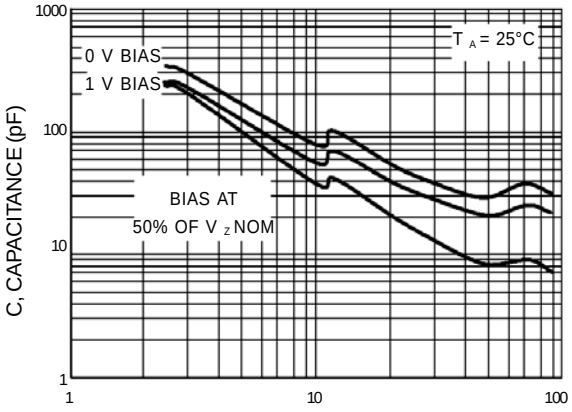


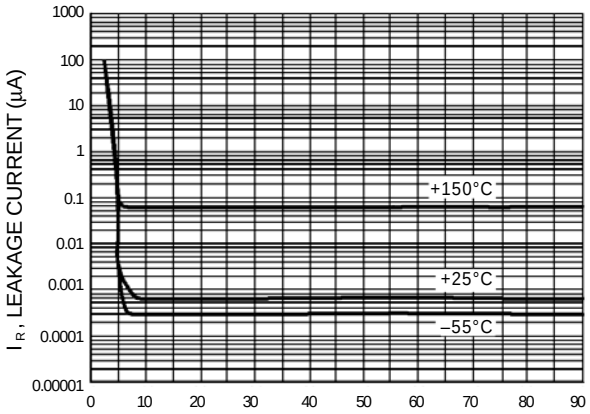
Figure 4. Typical Forward Voltage

TYPICAL CHARACTERISICS



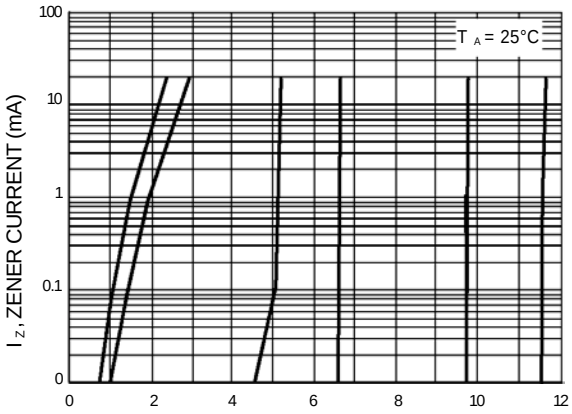
V Z, NOMINAL ZENER VOLTAGE (V)

Figure 5. Typical Capacitance



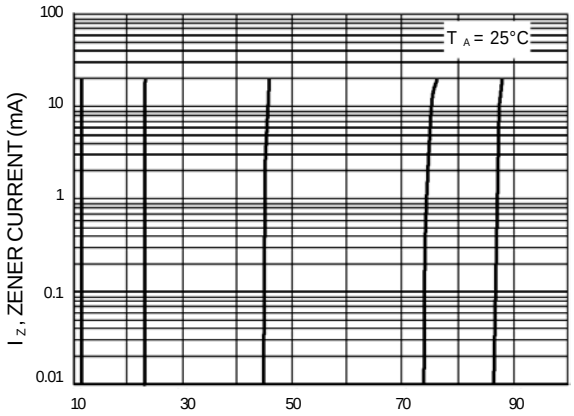
V Z, NOMINAL ZENER VOLTAGE (V)

Figure 6. Typical Leakage Current



V Z, ZENER VOLTAGE (V)

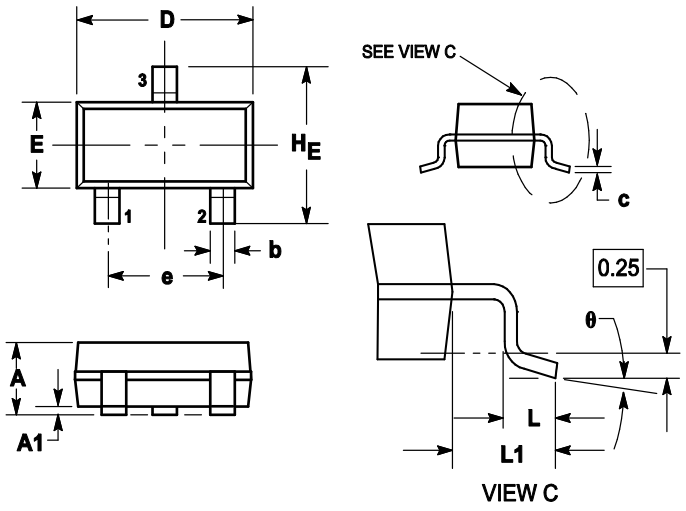
Figure 7. Zener Voltage versus Zener Current (V Z Up to 12 V)



V Z, ZENER VOLTAGE (V)

Figure 8. Zener Voltage versus Zener Current (12 V to 91 V)

OUTLINE AND DIMENSIONS

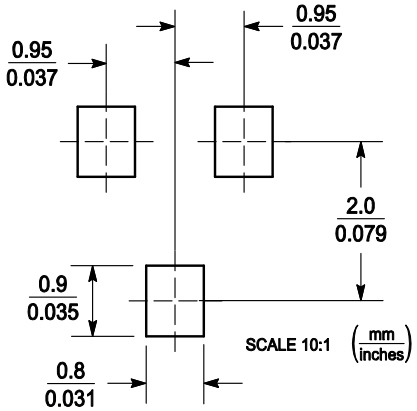


Notes:

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.

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单击下面可查看定价，库存，交付和生命周期等信息

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