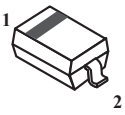
Surface Mount Zener Diodes

LBZT52MB3V6T1G Series
S-LBZT52MB3V6T1G Series

Features:

*500mw Power Dissipation
*Ideal for Surface Mountted Application
*Zener Breakdown Voltage Range 3.6V to 36V
*Pb-Free package is available
*S- Prefix for Automotive and Other Applications Requiring Unique Site and Control Change Requirements; AEC-Q101 Qualified and PPAP Capable.



SOD-123

Mechanical Data:

*Case : SOD-123 Molded plastic
*Terminals: Solderable per MIL-STD-202, Method 208
*Polarity: Cathode Indicated by Polarity Band
*Marking: Marking Code (See Specific marking table)
*Weigh: 0.01grams(approx)

Equivalent Circuit Diagram



Cathode Anode

Maximum Ratings and Electrical Characteristics (TA=25 °C Unless Otherwise Noted)

Characteristics	Symbol	Value	Unit
Total Power Dissipation on FR-5 Board (1)	PD	500	mW
Thermal Resistance Junction to Ambient Air (1)	$R_{\theta}JA$	305	°C/W
Forward Voltage @ IF=10mA	VF	0.9	V
Junction and Storage Temperature Range	Tj,TSTG	-55 to +150	°C

NOTES: 1. Device mounted on ceramic PCB; 7.6mm × 9.4mm × 0.87mm with pad areas 25mm²

Device Marking Code

Device	Marking	Device	Marking
LBZT52MB3V6T1G	B6	LBZT52MB12T1G	BU
LBZT52MB3V9T1G	B7	LBZT52MB13T1G	BV
LBZT52MB4V3T1G	BT	LBZT52MB15T1G	BW
LBZT52MB4V7T1G	B9	LBZT52MB16T1G	B5
LBZT52MB5V1T1G	BA	LBZT52MB18T1G	BD
LBZT52MB5V6T1G	BC	LBZT52MB20T1G	BG
LBZT52MB6V2T1G	BE	LBZT52MB22T1G	BK
LBZT52MB6V8T1G	BF	LBZT52MB24T1G	BM
LBZT52MB7V5T1G	BH	LBZT52MB27T1G	BN
LBZT52MB8V2T1G	BJ	LBZT52MB30T1G	BP
LBZT52MB9V1T1G	BL	LBZT52MB33T1G	BR
LBZT52MB10T1G	B0	LBZT52MB36T1G	BS
LBZT52MB11T1G	B1	-	-

Ratings and Characteristic curves

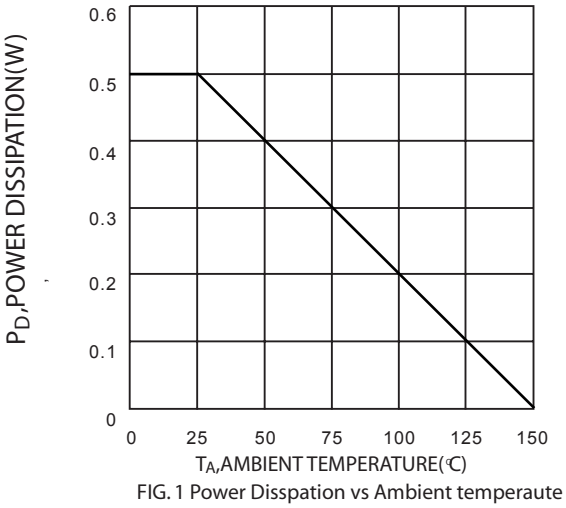


FIG. 1 Power Disspation vs Ambient temperaute

LBZT52MB3V6T1G Series , S-LBZT52MB3V6T1G Series

Electrical Characteristics (T_A=25°C unless otherwise noted, V_F=0.9V Max@ I_F=10mA)

Device	Zener voltage			Operating resistance		Rising operating resistance		Reverse curre	
	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)
LBZT52MB3V6T1G	3.530	3.670	5	85	5	600	1.0	2	1.0
LBZT52MB3V9T1G	3.820	3.980	5	85	5	600	1.0	2	1.0
LBZT52MB4V3T1G	4.210	4.390	5	80	5	600	1.0	1	1.0
LBZT52MB4V7T1G	4.610	4.790	5	70	5	500	1.0	0.5	1.0
LBZT52MB5V1T1G	5.000	5.200	5	50	5	480	1.0	0.1	1.0
LBZT52MB5V6T1G	5.490	5.710	5	30	5	400	1.0	0.1	1.0
LBZT52MB6V2T1G	6.080	6.320	5	10	5	150	1.0	0.1	2.0
LBZT52MB6V8T1G	6.660	6.940	5	8	5	80	1.0	0.1	3.0
LBZT52MB7V5T1G	7.350	7.650	5	7	5	50	1.0	0.1	5.0
LBZT52MB8V2T1G	8.040	8.360	5	7	5	50	1.0	0.1	6.1
LBZT52MB9V1T1G	8.920	9.280	5	10	5	50	1.0	0.1	6.8
LBZT52MB10T1G	9.800	10.200	5	15	5	70	1.0	0.1	7.5
LBZT52MB11T1G	10.780	11.220	5	20	5	70	1.0	0.1	8.2
LBZT52MB12T1G	11.760	12.240	5	20	5	90	1.0	0.1	9.0
LBZT52MB13T1G	12.740	13.260	5	26	5	110	1.0	0.1	9.7
LBZT52MB15T1G	14.700	15.300	5	30	5	110	1.0	0.1	11
LBZT52MB16T1G	15.680	16.320	5	40	5	170	1.0	0.1	12
LBZT52MB18T1G	17.640	18.360	5	45	5	170	1.0	0.1	14
LBZT52MB20T1G	19.600	20.400	5	55	5	220	1.0	0.1	15
LBZT52MB22T1G	21.560	22.440	5	55	5	220	1.0	0.1	17
LBZT52MB24T1G	23.520	24.480	5	70	5	220	1.0	0.1	18
LBZT52MB27T1G	26.460	27.540	5	80	5	220	1.0	0.1	20
LBZT52MB30T1G	29.400	30.600	5	80	5	220	1.0	0.1	22
LBZT52MB33T1G	32.340	33.660	5	80	5	220	1.0	0.1	24
LBZT52MB36T1G	35.280	36.720	5	80	5	220	1.0	0.1	27

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).

LBZT52MB3V6T1G Series , S-LBZT52MB3V6T1G Series

ELECTRICAL CHARACTERISTIC CURVES (Ta=25°C)

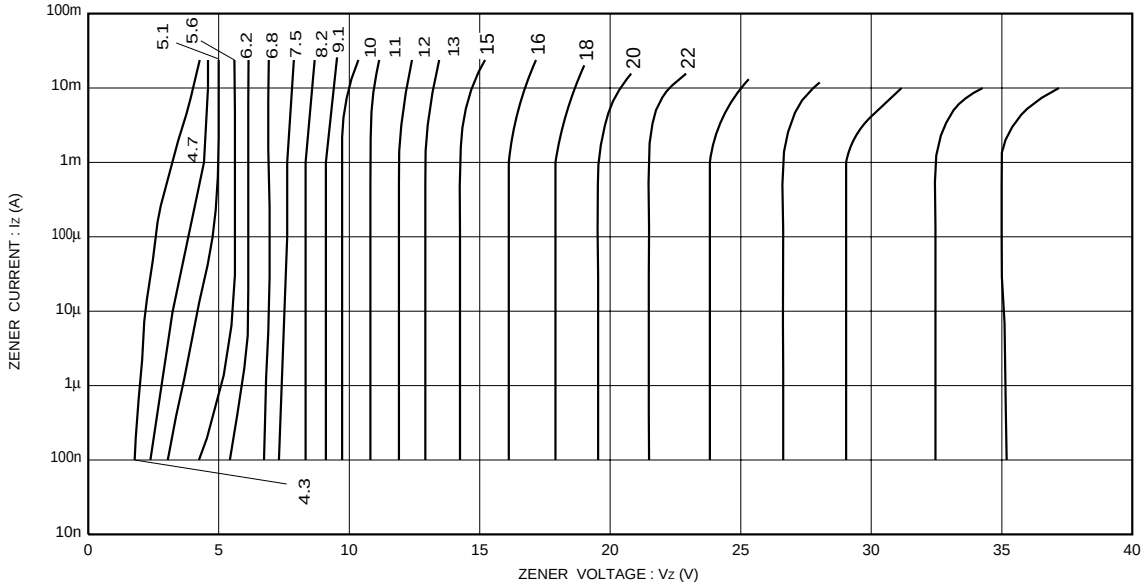
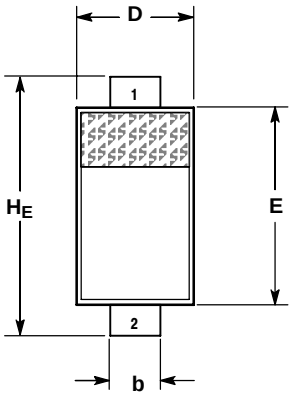
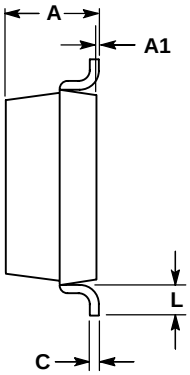


Fig.1 Zener voltage characteristics

LBZT52MB3V6T1G Series , S-LBZT52MB3V6T1G Series

SOD−123



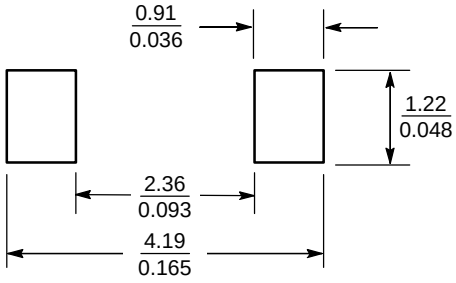


NOTES:
1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: INCH.

	MILLIMETERS			INCHES		
DIM	MIN	NOM	MAX	MIN	NOM	MAX
A	0.94	1.17	1.35	0.037	0.046	0.053
A1	0.00	0.05	0.10	0.000	0.002	0.004
b	0.51	0.61	0.71	0.020	0.024	0.028
c	---	---	0.15	---	---	0.006
D	1.40	1.60	1.80	0.055	0.063	0.071
E	2.54	2.69	2.84	0.100	0.106	0.112
H_E	3.56	3.68	3.86	0.140	0.145	0.152
L	0.25	---	---	0.010	---	---

STYLE 1:
PIN 1. CATHODE
2. ANODE

SOLDERING FOOTPRINT*



SCALE 10:1 $\left(\frac{mm}{inches}\right)$