

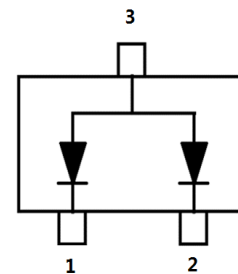
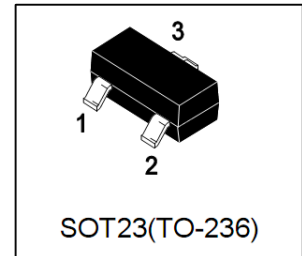
# LMBZ27VALT1G

## S-LMBZ27VALT1G

Dual Common Anode Zeners for ESD Protection

### 1. FEATURES

- Working Peak Reverse Voltage Range – 3 V to 26 V.
- Standard Zener Breakdown Voltage Range – 5.6 V to 33 V.
- Peak Power – 24 or 40 Watts @ 1.0 ms (Unidirectional), per Figure 5 Waveform.
- ESD Rating of Class N (exceeding 16 kV) per the Human Body Model.
- Low Leakage < 5.0  $\mu$ A.
- Flammability Rating UL 94 V-O
- We declare that the material of product compliance with RoHS requirements and Halogen Free.
- S- prefix for automotive and other applications requiring unique site and control change requirements; AEC-Q101 qualified and PPAP capable.



### 2. DEVICE MARKING AND ORDERING INFORMATION

Device	Marking	Shipping
LMBZ27VALT1G	27A	3000/Tape&Reel
LMBZ27VALT3G	27A	10000/Tape&Reel

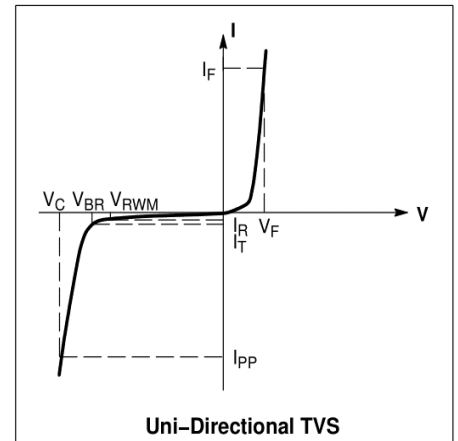
### 3. MAXIMUM RATINGS(Ta = 25°C)

Parameter	Symbol	Limits	Unit
Peak Power Dissipation @ 1.0 ms (Note 1)	Ppk	40	W
Total Power Dissipation on FR-5 Board (Note 2) @TA =25°C	PD	225	mW
Derate above 25°C		1.8	mW/°C
Thermal Resistance Junction-to-Ambient	R $\theta$ JA	556	°C/W
Total Power Dissipation on Alumina Substrate (Note 3) @TA=25°C	PD	300	mW
Derate above 25°C		2.4	mW/°C
Thermal Resistance Junction-to-Ambient	R $\theta$ JA	417	°C/W
Junction and Storage Temperature Range	TJ,Tstg	-55~+150	°C
Lead Solder Temperature – Maximum (10 Second Duration)	TL	260	°C

1. Non-repetitive current pulse and derate above TA = 25°C .
2. FR-5 = 1.0 x 0.75 x 0.62 in.
3. Alumina = 0.4 x 0.3 x 0.024 in, 99.5% alumina.

**4. ELECTRICAL CHARACTERISTICS (Ta= 25°C)**

Symbol	Parameter
IPP	Maximum Reverse Peak Pulse Current
VC	Clamping Voltage @IPP
VRWM	Working Peak Reverse Voltage
IR	Maximum Reverse Leakage Current @VRWM
VBR	Breakdown Voltage @IT
IT	Test Current
θVBR	Maximum Temperature Coefficient of VBR
IF	Forward Current
VF	Forward Voltage @IF
ZZT	Maximum Zener Impedance @IZT
IZK	Reverse Current
ZZK	Maximum Zener Impedance @IZK



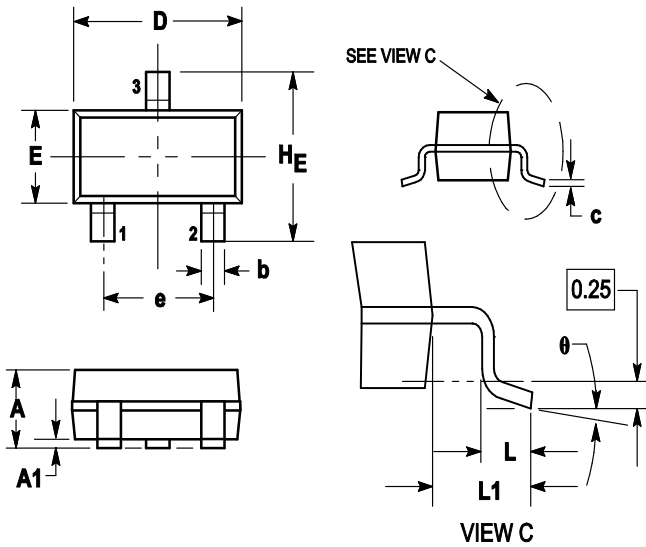
**5. ELECTRICAL CHARACTERISTICS (Ta= 25°C)(VF ≤ 0.9V @IF = 10 mA)**

Characteristic	Symbol	Min.	Typ.	Max.	Unit
Breakdown Voltage (IT = 1mA)	VBR	25.65	27	28.35	V
Maximum Reverse Leakage Current (VRWM =22V)	IR	-	-	50	nA
Clamping Voltage (IPP=1A)	VC	-	-	40	V
Junction Capacitance (f=1MHz, Level=50mV, VR=0V)	Cj	-	-	60	pF
Maximum Temperature Coefficient of VBR	θVBR	-	-	24.3	mV/°C

## 6. 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.



DIM	MILLIMETERS			INCHES		
	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
HE	2.10	2.4	2.64	0.083	0.094	0.104
θ	0°	---	10°	0°	---	10°

## 7. SOLDERING FOOTPRINT

