

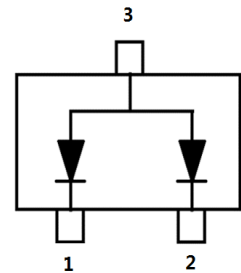
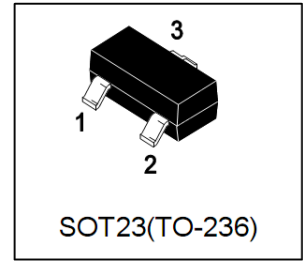
LMBZ27VALT1G

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 μ A.
- Flammability Rating UL 94 V-O
- Complies with IEC 61000-4-2 standards: Air discharge: \pm 30kV
Contact discharge: \pm 30kV
- 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

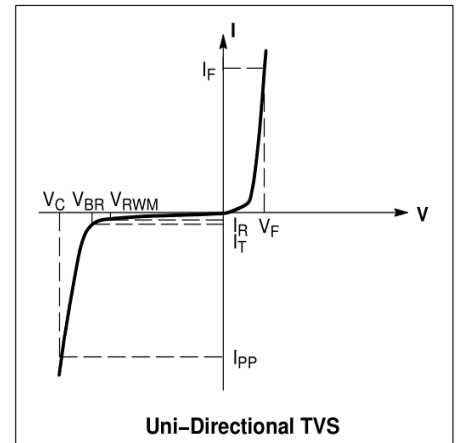
3. MAXIMUM RATINGS(Ta = 25°C)

Parameter	Symbol	Limits	Unit
Peak Power Dissipation @ 1.0 ms (Note 1)	Ppk	40	W
Total Power Dissipation(Note 2) @TA=25°C	PD	250	mW
Derate above 25°C		2	mW/°C
Thermal Resistance Junction-to-Ambient	R θ JA	500	°C/W
Junction Temperature Range	TJ	-55~+150	°C
Storage Temperature Range	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. 30.0mm×25.0mm×1.6mm(FR4), Copper foil thickness 35 μ m;

4. ELECTRICAL CHARACTERISTICS (Ta= 25°C)

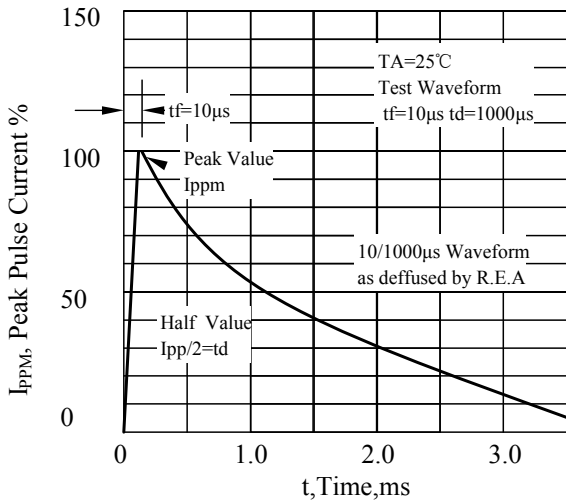
Symbol	Parameter
IPP	Maximum Reverse Peak Pulse Current
VC	Clamping Voltage @IPP
VRWM	Working Peak Reverse Voltage
IR	Maximum Reverse Leakage Current @VRWM
VBR	Breakdown Voltage @IT
IT	Test Current
θVBR	Maximum Temperature Coefficient of VBR
IF	Forward Current
VF	Forward Voltage @IF
ZZT	Maximum Zener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



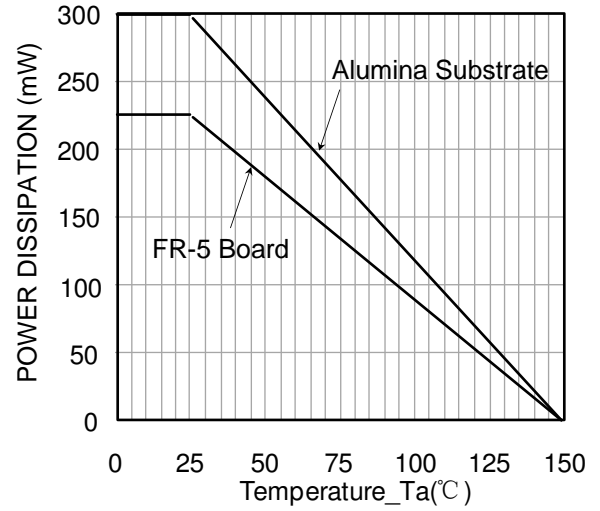
5. ELECTRICAL CHARACTERISTICS (Ta= 25°C)(VF ≤ 0.9V @IF = 10 mA)

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	-	-	38	V
Junction Capacitance (f=1MHz, Level=50mV, VR=0V)	Cj	-	-	60	pF
Maximum Temperature Coefficient of VBR	θVBR	-	-	24.3	mV/°C

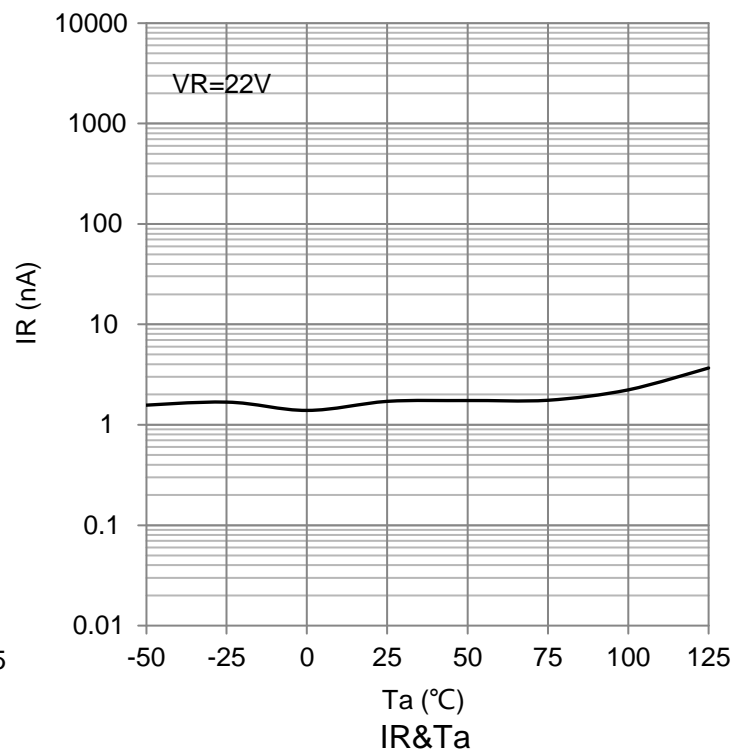
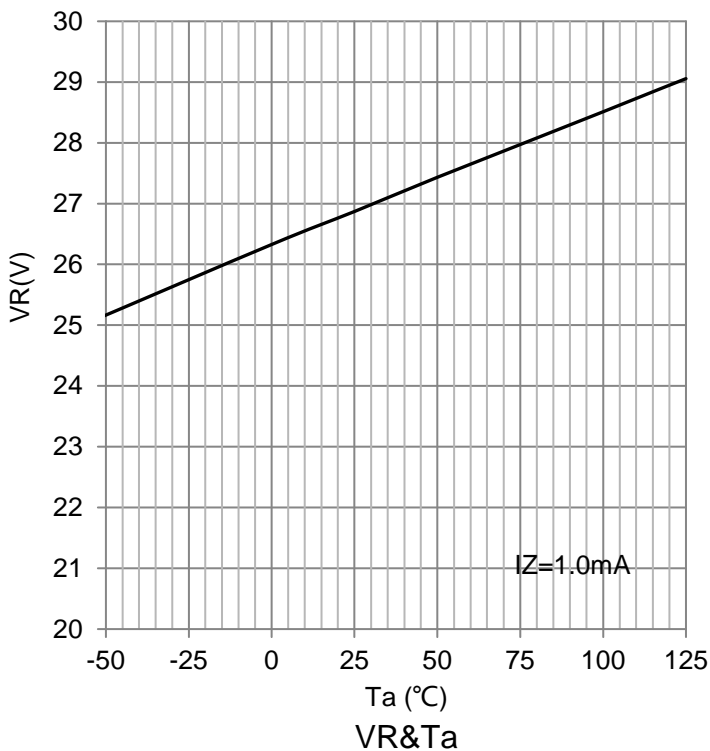
6.ELECTRICAL CHARACTERISTICS CURVES



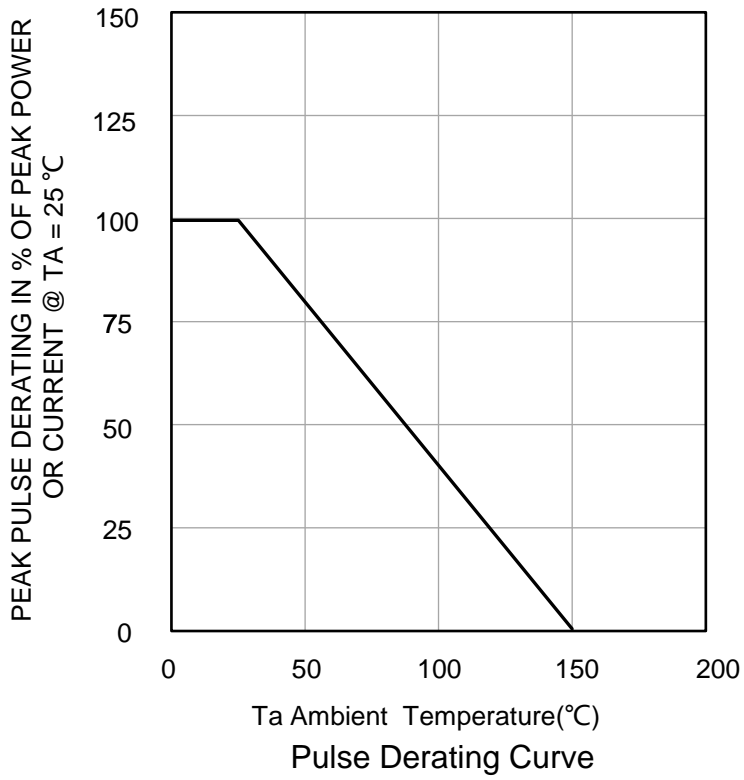
Pulse Waveform



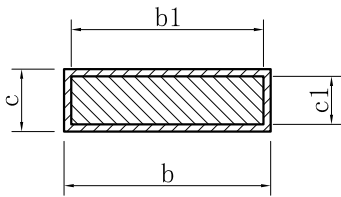
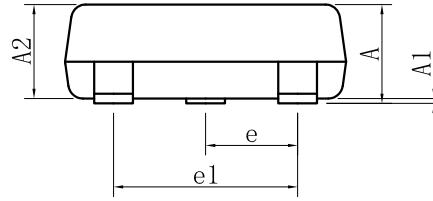
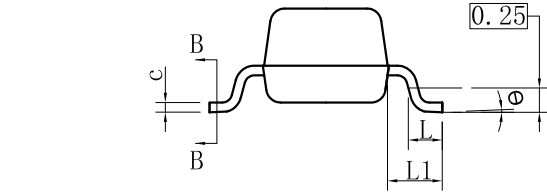
Steady State Power Derating Curve



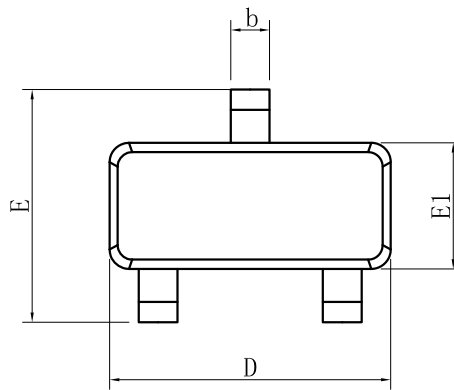
6.ELECTRICAL CHARACTERISTICS CURVES(Con.)



7. OUTLINE AND DIMENSIONS



SECTION B-B

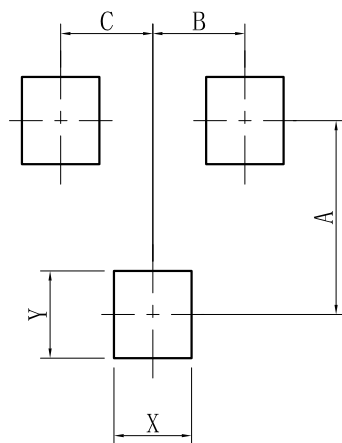


SOT23			
DIM	MIN	NOR	MAX
A	0.89	-	1.12
A1	0.01	-	0.10
A2	0.88	0.95	1.02
b	0.30	-	0.50
b1	0.30	0.40	0.45
c	0.08	-	0.20
c1	0.08	0.10	0.16
D	2.80	2.90	3.04
E	2.10	-	2.64
E1	1.20	1.30	1.40
e	0.95BSC		
e1	1.90BSC		
L	0.40	0.46	0.60
L1	0.54REF		
θ	0°	-	8°
All Dimensions in mm			

GENERAL NOTES

1. Top package surface finish Ra0.4±0.2um
2. Bottom package surface finish Ra0.7±0.2um
3. Side package surface finish Ra0.4±0.2um

8. SOLDERING FOOTPRINT



SOT-23	
DIM	(mm)
X	0.80
Y	0.90
A	2.00
B	0.95
C	0.95

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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