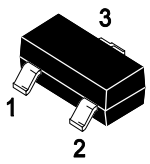
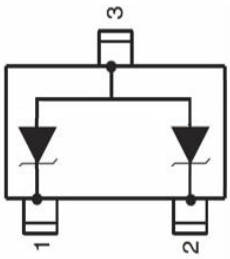
LTVS23H24LT1G
S-LTVS23H24LT1G

ESD Protection Diode



SOT23(TO-236)



1. FEATURES

- 300 watts peak pulse power.
- Low clamping voltage.
- Complies with IEC 61000-4-2 standards:Air discharge: ±30kV
  Contact discharge: ±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. APPLICATIONS

- Cellular Handsets and Accessories
- Portable Electronics
- Industrial Controls
- Set-Top Box
- Servers, Notebook, and Desktop PC

3. DEVICE MARKING AND ORDERING INFORMATION

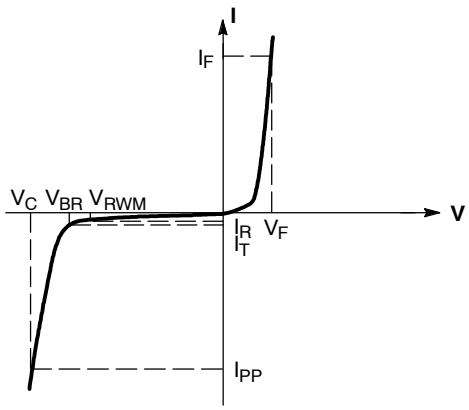
Device	Marking	Shipping
LTVS23H24LT1G	24P	3000/Tape&Reel

4. MAXIMUM RATINGS(Ta = 25ºC)

Parameter		Symbol	Limits	Unit
IEC 61000−4−2 (ESD)	Contact		±30	kV
	Air		±30	
peak pulse power@8/20 μs		PPP	300	W
peak pulse current @8/20 μs		IPP	8	A
Storage Temperature Range		Tstg	−55～+150	ºC
Operating Temperature Range		TJ	−55～+125	ºC

5. ELECTRICAL CHARACTERISTICS (Ta= 25ºC)

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
IF	Forward Current
VF	Forward Voltage @ IF
Ppk	Peak Power Dissipation
C	Capacitance @ VR = 0 and f = 1.0 MHz



Uni−Directional TVS

6. ELECTRICAL CHARACTERISTICS (Ta= 25°C)

Characteristic	Symbol	Min.	Typ.	Max.	Unit
Reverse stand-off voltage	VRWM	-	-	24	V
Reverse leakage current (VRWM = 24 V,Ta= 25 ℃)	IR	-	-	1	μA
Reverse breakdown voltage (IT = 1 mA)	VBR	25.6	-	-	V
Clamping Voltage (IPP = 1A (8 x 20μs pulse) (IPP = 5A (8 x 20μs pulse)	VC	 - -	 - -	 30 36	V
Junction Capacitance (VR = 0V, f = 1MHz,Pin 1 to Pin2) (VR = 0V, f = 1MHz,Pin 1 to 3 and Pin 2 to3)	CJ	 - -	 - -	 30 60	pF

7. ELECTRICAL CHARACTERISTIC CURVES

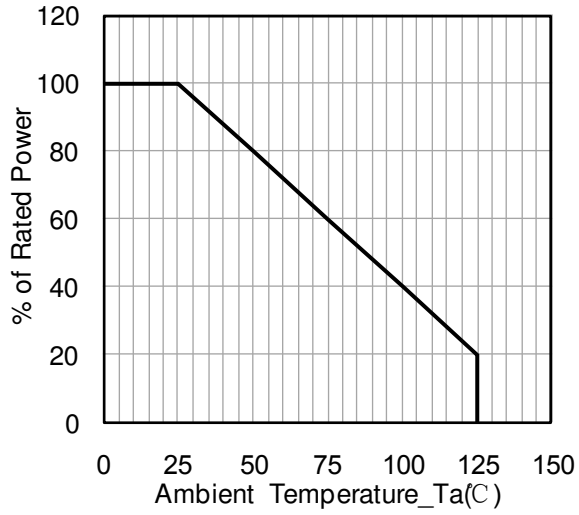


Figure 1. Power Derating Curve

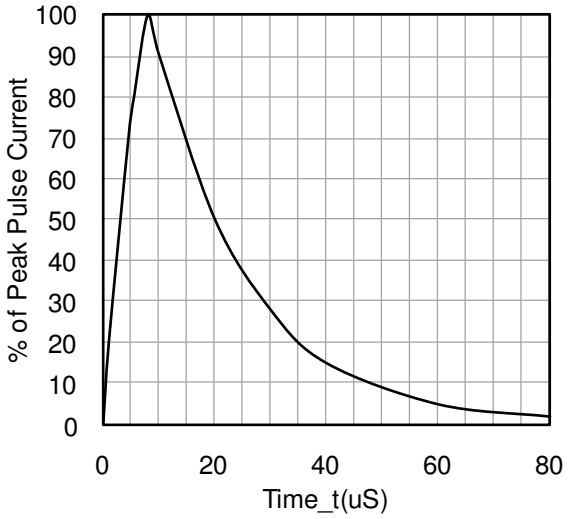


Figure 2. 8 X 20uS Pulse Waveform

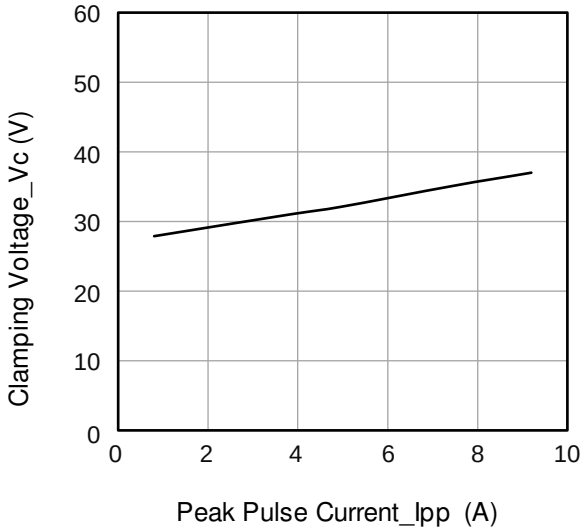


Figure 3.Clamping Voltage vs.Peak Pulse Current

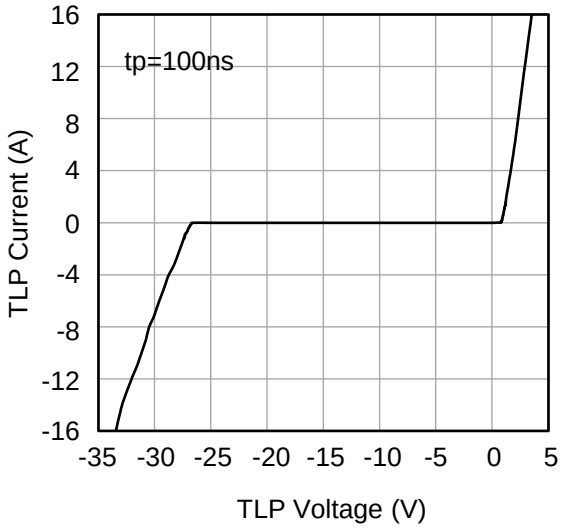
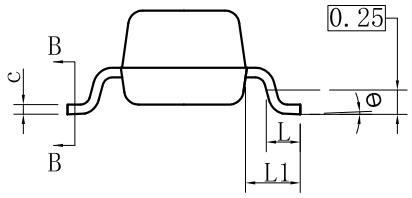
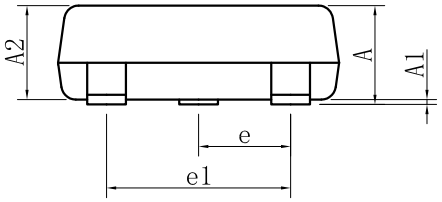
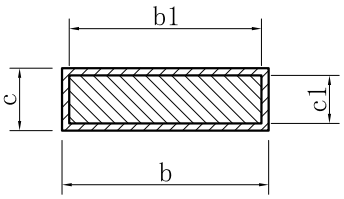


Figure 4. TLP Measurement

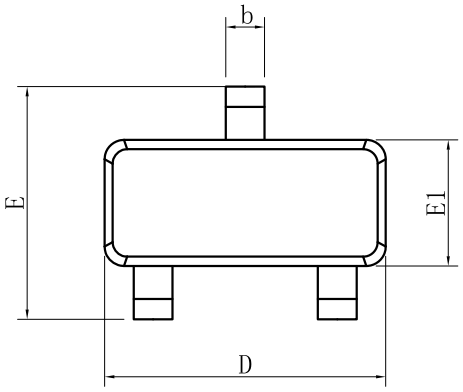
8.OUTLINE AND DIMENSIONS







SECTION B-B

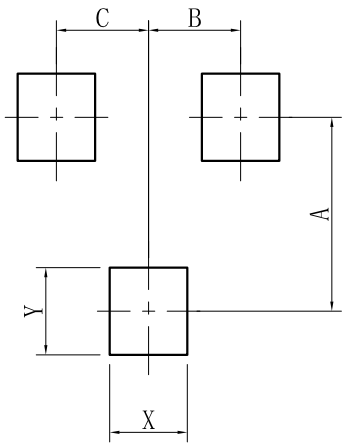


SOT23			
DIM	MIN	NOR	MAX
A	0.89	-	1.12
A1	0.01	-	0.10
A2	0.88	0.95	1.02
b	0.30	-	0.50
b1	0.30	0.40	0.45
c	0.08	-	0.20
c1	0.08	0.10	0.16
D	2.80	2.90	3.04
E	2.10	-	2.64
E1	1.20	1.30	1.40
e	0.95BSC		
e1	1.90BSC		
L	0.40	0.46	0.60
L1	0.54REF		
θ	0°	-	8°
All Dimensions in mm			

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

9.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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