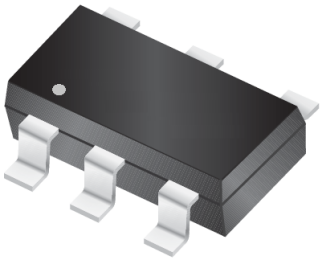
# LOW Capacitance ESD TVS Array

## Features

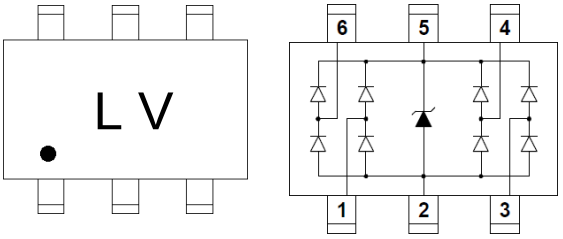
- 120Watts peak pulse power (tp = 8/20μs)
- SOT23-6 package
- Solid-state silicon-avalanche technology
- Low clamping voltage
- Low leakage current
- Low capacitance (0.7pF typical I/O to I/O)
- ESD Protection for high-speed data lines to:
  IEC 61000-4-2 ±15KV contact ±8KV air
  IEC 61000-4-4 (EFT) 40A (5/50ns)
  IEC 61000-4-5 (Lightning) 7A (8/20 μs)
- RoHS compliant

RoHS
COMPLIANT



**Marking**：.LV **SOT23-6**

**Schematic Diagram**




## Applications

- Video lines protection
- 100/1000M Ethernet protection
- Fingerprint sensor
- Other LAN application
- Other 3.3V application

## Absolute Maximum Ratings ($T_A$=25℃, Unless otherwise specified.)

| Parameter | Symbol | Value | Unit |
|---|---|---|---|
| Peak Pulse Power ($T_P$=8/20μS) | $P_{PP}$ | 120 | W |
| Peak Pulse Current ( $t_P$ = 8/20μS ) | $I_{PP}$ | 7 | A |
| Junction Temperature | $T_J$ | -55 to +125 | ℃ |
| Storage temperature | $T_{STG}$ | -55 to +150 | ℃ |

## Electrical Characteristics ($T_A$=25℃, Unless otherwise specified.)

| Parameter | Symbol | Condition | Min | Typ | Max | Unit |
|---|---|---|---|---|---|---|
| Reverse stand-off Voltage | $V_{RWM}$ | | | | 3.3 | V |
| Reverse Breakdown Voltage | $V_{BR}$ | $I_T$=1mA | 4.0 | | | V |
| Reverse Leakage Current | $I_R$ | $V_R$=3.3V | | | 1 | μA |
| Clamping Voltage | $V_C$ | $I_{PP}$=7A，$T_P$=8/20μS | | 11 | 13.5 | V |
| Junction Capacitance | $C_J$ | $V_R$=0V,f=1MHz, I/O to I/O | | 0.7 | | pF |
| | $C_J$ | $V_R$=0V,f=1MHz, I/O to GND | | 1.5 | | pF |

## Ratings and Characteristics Curves

($T_A$ = 25℃ unless otherwise noted)

**Fig.1 Peak Pulse Power Rating Curve**

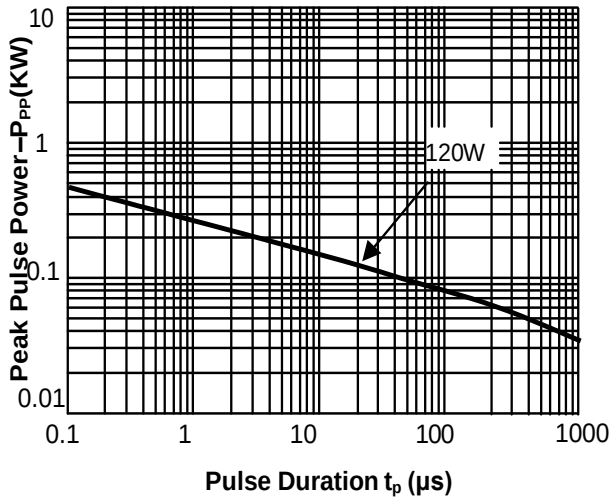



**Fig.2 Pulse Derating Curve**

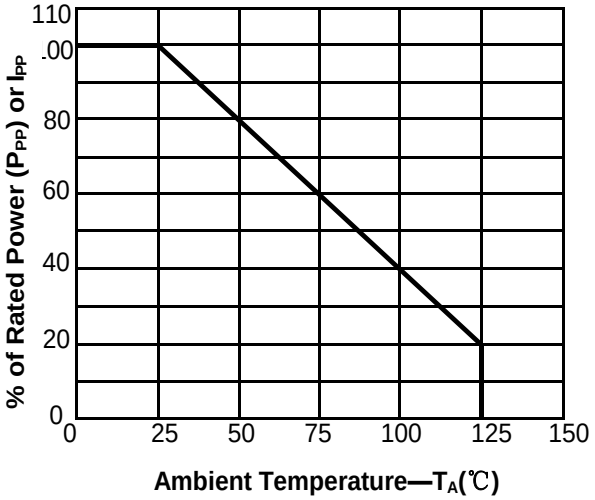



**Fig.3 Pulse Waveform-8/20μs**

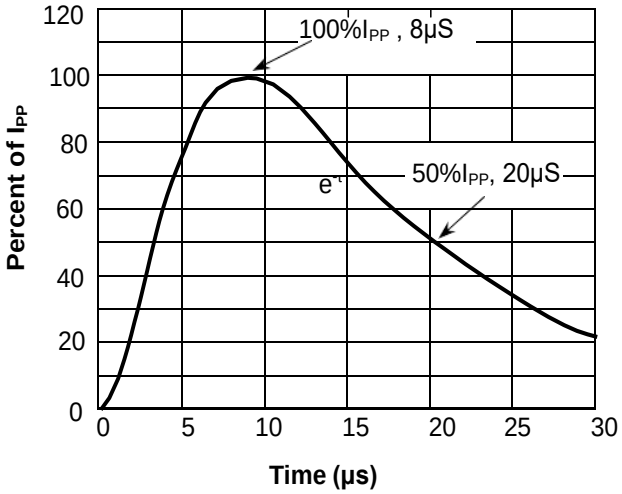
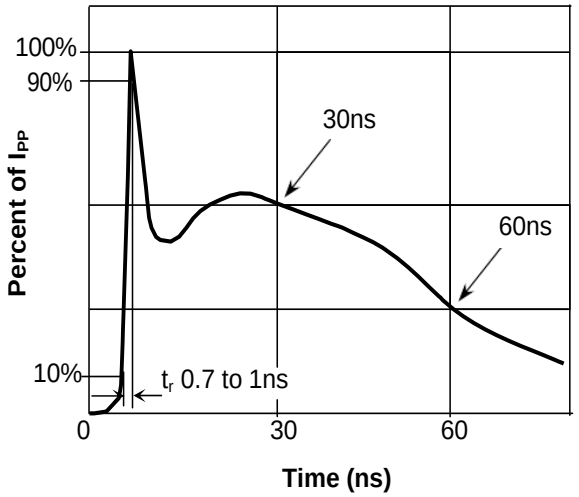
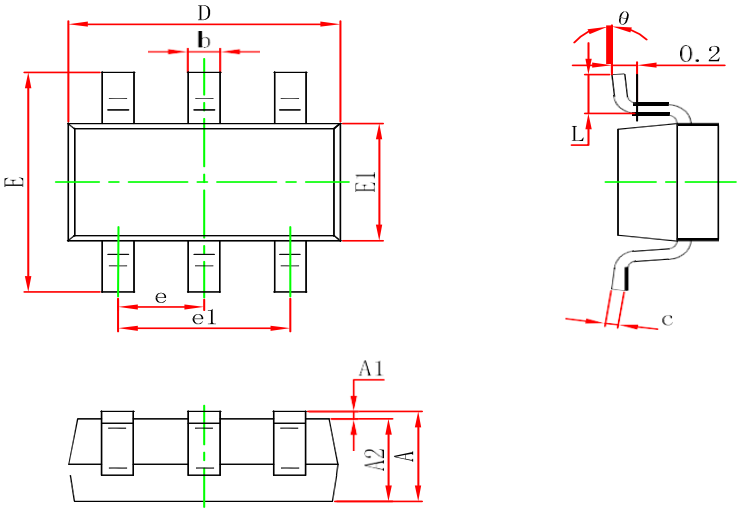



**Fig.4 Pulse Waveform-ESD(IEC61000-4-2)**



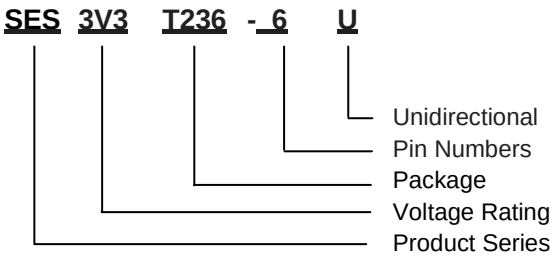
## Package Outline Dimensions

millimeters




| Symbol | Dimensions in millimeters | | Dimensions in inches | |
|---|---|---|---|---|
| | Min | Max | Min | Max |
| A | 1.050 | 1.250 | 0.041 | 0.049 |
| A1 | 0.000 | 0.100 | 0.000 | 0.004 |
| A2 | 1.050 | 1.150 | 0.041 | 0.045 |
| b | 0.300 | 0.500 | 0.012 | 0.020 |
| c | 0.100 | 0.200 | 0.004 | 0.008 |
| D | 2.820 | 3.020 | 0.111 | 0.119 |
| E1 | 1.500 | 1.700 | 0.059 | 0.067 |
| E | 2.650 | 2.950 | 0.104 | 0.116 |
| e | 0.950(BSC) | | 0.037(BSC) | |
| e1 | 1.800 | 2.000 | 0.071 | 0.079 |
| L | 0.300 | 0.600 | 0.012 | 0.024 |
| θ | 0° | 8° | 0° | 8° |

## Part Number System




## Revision History

| Document Version | Date of release | Discription of changes |
|---|---|---|
| Rev.A | 2014.03.25 | First issue |
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