

## DESCRIPTION

The SGSLVU2.8-4 is an ultra low capacitance TVS array that provides two line pairs of protection. This device protects high-frequency applications such as voice, video and data related systems and is designed to minimize the effects of high overshoot voltage experienced during and ESD event. This device has an in-line design, which reduces lead inductance thus providing lower overshoot voltage.

The SGSLVU2.8-4 meets IEC 61000-4-2, IEC 61000-4-4 and IEC 61000-4-5 requirements. Packaged in an SO-8 configuration, this device is rated for 400 Watts Peak Pulse Power, for an 8/20 $\mu$ s waveform.

## FEATURES

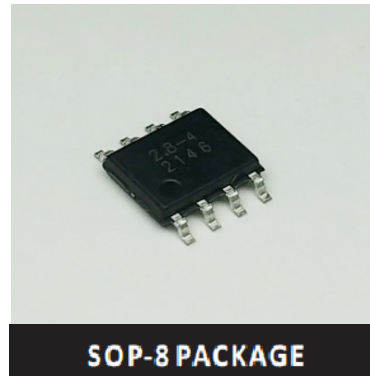
- >400 Watts Peak Pulse Power per Line (tp=8/20 $\mu$ s)
- >Protects two line pairs (four lines)
- >Low capacitance
- >RoHS Compliant

## APPLICATIONS

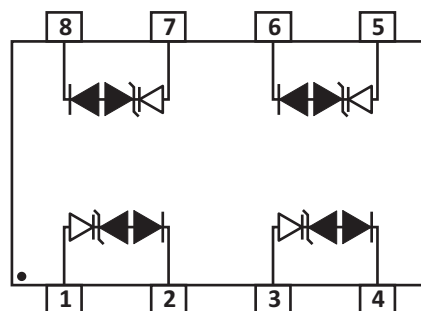
- >10/100/1000 Ethernet
- >WAN/LAN Equipment
- >Test & Measurement Equipment
- >Switching Systems
- >Instrumentation
- >Audio/Video Inputs

## IEC COMPATIBILITY

- >IEC61000-4-2 (ESD)  $\pm$ 15kV (air),  $\pm$ 8kV (contact)
- >IEC61000-4-4 (EFT) 40A (5/50ns)
- >IEC61000-4-5 (Lightning) 24A (8/20 $\mu$ s)



## PIN CONFIGURATIONS



**MAXIMUM RATINGS @ 25°C UNLESS OTHERWISE SPECIFIED**

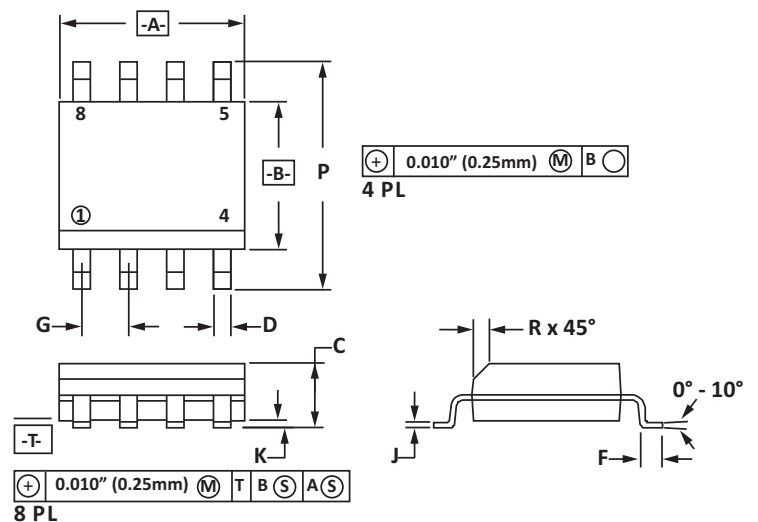
| PARAMETER                             | SYMBOL | VALUE        | UNIT  |
|---------------------------------------|--------|--------------|-------|
| Peak Pulse Power (tp=8/20μs waveform) | PPP    | 400          | W a s |
| Lead Soldering Temperature            | TL     | 260(10 sec.) | °C    |
| Operang Temperature Range             | TJ     | -55~150      | °C    |
| Storage Temperature Range             | TSTG   | -55~150      | °C    |

**ELECTRICAL CHARACTERISTICS PER LINE @ 25°C UNLESS OTHERWISE SPECIFIED**

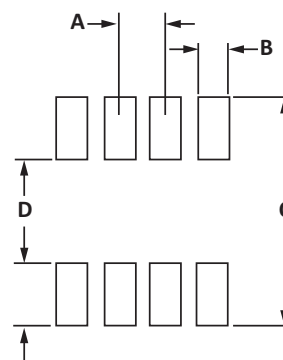
| PART NUMBER | DEVICE MARKING | VRWM (V) Max. | VB (V) Min. | IT (mA) | Vc @5A Max. | Vc   |    | IR (uA) Max. | CT (pF) Max. |
|-------------|----------------|---------------|-------------|---------|-------------|------|----|--------------|--------------|
|             |                |               |             |         |             | Max. | @A |              |              |
| SGSLVU2.8-4 | SLVU 2.8-4     | 2.8           | 3.0         | 1       | 8.5         | 15   | 24 | 1            | 3            |

**SOP-8 PACKAGE INFORMATION**
**OUTLINE DIMENSIONS**

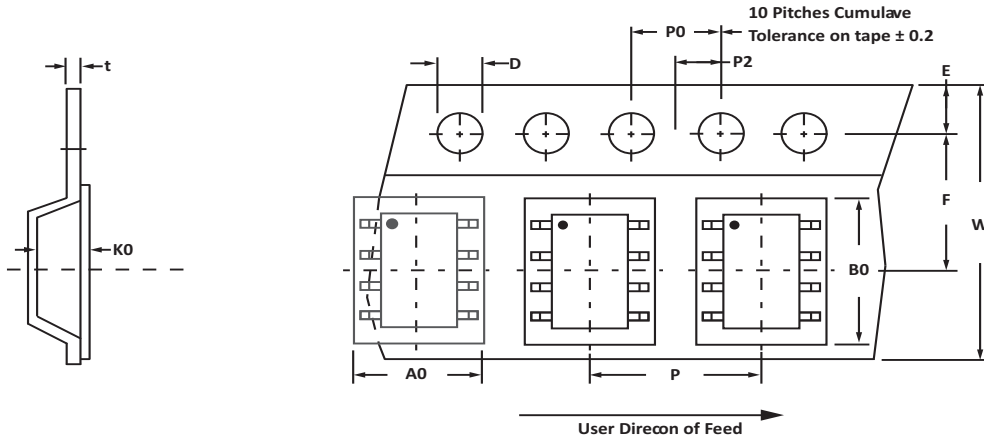
| DIM | MILLIMETERS |      | INCHES   |       |
|-----|-------------|------|----------|-------|
|     | MIN         | MAX  | MIN      | MAX   |
| A   | 4.80        | 5.00 | 0.189    | 0.196 |
| B   | 3.80        | 4.00 | 0.150    | 0.157 |
| C   | 1.35        | 1.75 | 0.054    | 0.068 |
| D   | 0.35        | 0.49 | 0.014    | 0.019 |
| F   | 0.40        | 1.25 | 0.016    | 0.049 |
| G   | 1.27 BSC    |      | 0.05 BSC |       |
| J   | 0.18        | 0.25 | 0.007    | 0.009 |
| K   | 0.10        | 0.25 | 0.004    | 0.008 |
| P   | 5.80        | 6.20 | 0.229    | 0.244 |
| R   | 0.25        | 0.50 | 0.010    | 0.019 |


**PAD LAYOUT DIMENSIONS**

| DIM | MILLIMETERS |      | INCHES |       |
|-----|-------------|------|--------|-------|
|     | MIN         | MAX  | MIN    | MAX   |
| A   | 1.14        | 1.40 | 0.045  | 0.055 |
| B   | 0.64        | 0.89 | 0.025  | 0.035 |
| C   | 6.22        | -    | 0.245  | -     |
| D   | 3.94        | 4.17 | 0.155  | 0.165 |
| E   | 1.02        | 1.27 | 0.040  | 0.050 |



**TAPE AND REEL**



**SPECIFICATIONS**

| REEL DIA.  | TAPE WIDTH | A0              | B0              | K0              | D               | E               | F               | W               | P0              | P2              | P               | tmax |
|------------|------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|------|
| 178mm (7") | 12mm       | 6.50 $\pm$ 0.10 | 5.40 $\pm$ 0.10 | 2.00 $\pm$ 0.10 | 1.50 $\pm$ 0.10 | 1.75 $\pm$ 0.10 | 5.50 $\pm$ 0.05 | 12.0 $\pm$ 0.30 | 4.00 $\pm$ 0.10 | 2.00 $\pm$ 0.05 | 4.00 $\pm$ 0.10 | 0.25 |

**NOTES**

1. Dimensions are in millimeters.
2. Surface mount product is taped and reeled in accordance with EIA-481.
3. Suffix -T7 = 7" Reel - 1,000 pieces per 12mm tape.

**ORDERING INFORMATION**

| BASE PART NUMBER<br>(xx = Voltage) | LEAD FREE SUFFIX | TAPE SUFFIX | QTY/REEL | REEL SIZE | TUBE QTY |
|------------------------------------|------------------|-------------|----------|-----------|----------|
| SGSLVU2.8-4                        | -LF              | -T7         | 1,000    | 7"        | n/a      |

This device is only available in a Lead-Free configuraon.