

Features

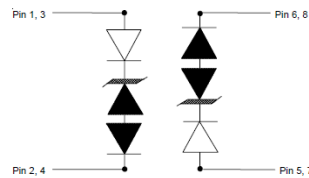
- ◇ 400W (8/20 μ s) Peak Pulse Power
- ◇ Low Voltage TVS Diode Array for ESD and Latch-Up Protection
- ◇ SOP-8 Package
- ◇ RoHS Compliant
- ◇ Matte Tin Lead finish (Pb-Free)
- ◇ Protects Four Lines
- ◇ Meet IEC61000-4-2 Level 4:
Contact Discharge > 20kV Air
Discharge > 20kV

SC
SLVU2.8-4

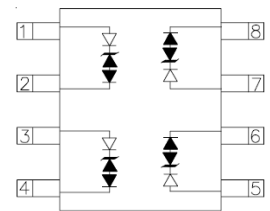
Applications

- ◇ 10/100 Ethernet
- ◇ Base Stations
- ◇ Analog Inputs
- ◇ Switching Systems
- ◇ WAN/LAN Equipment
- ◇ Laser Diode Protection
- ◇ Desktops, Servers, Notebooks and Handhelds

Circuit Diagram



PIN Diagram



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

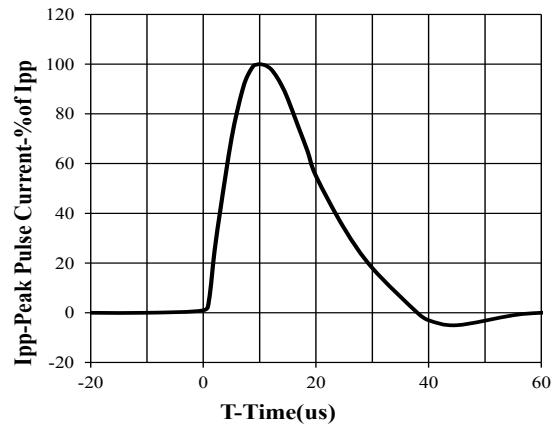
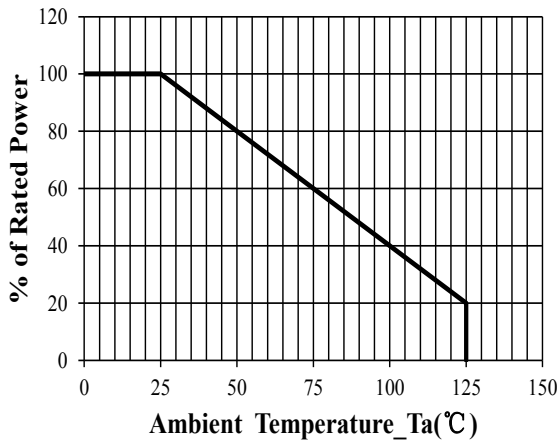
Absolute Maximum Ratings

| Symbol | Parameter | Value | Unit |
|----------------|--------------------------------------|-------------|------|
| PPK | Peak Pulse Power | 400 | W |
| IPP | Peak Pulse Current | 20 | A |
| VESD (Contact) | Contact ESD Voltage per IEC61000-4-2 | 20 | kV |
| VESD (Air) | Air ESD Voltage per IEC61000-4-2 | 20 | kV |
| TJ | Junction Temperature | -55 to +125 | °C |
| TSTG | Storage Temperature | -55 to +150 | °C |

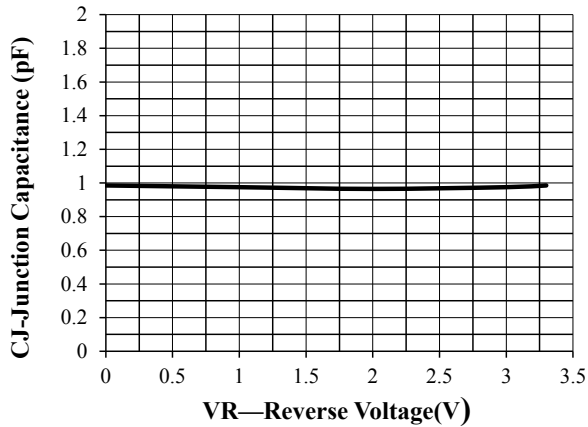
Electrical Characteristics (T_J=25°C unless otherwise specified)

| Symbol | Parameter | Conditions | Min | Typ | Max | Unit |
|--------|------------------------------|----------------------|-----|-----|-----|------|
| VRWM | Reverse Working Peak Voltage | | | | 2.8 | V |
| VT | Trigger Voltage | I _T = 2uA | 3.0 | | | V |
| VSB | Snap-Back Voltage | ISB = 50mA | 2.8 | | | V |
| IR | Reverse Leakage Current | VRWM = 2.8V | | | 1 | μA |
| VC | Clamping Voltage | IPP = 1A (8/20μs) | | 7 | 9 | V |
| VC | Clamping Voltage | IPP = 5A (8/20μs) | | 9 | 12 | V |
| VC | Clamping Voltage | IPP = 20A (8/20μs) | | 16 | 20 | V |
| CJ | Capacitance | VR = 0V, f = 1MHz | | 1 | 5 | pF |

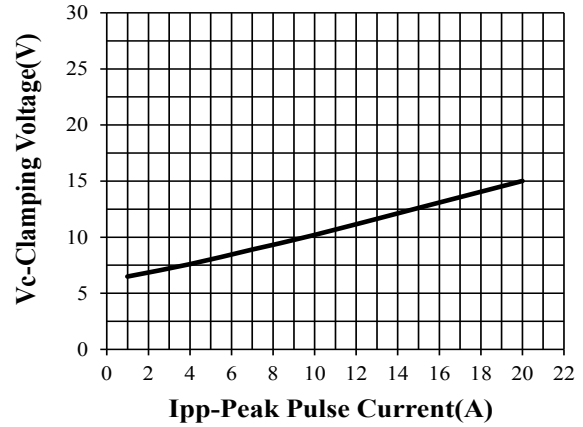
RATING AND CHARACTERISTIC CURVES



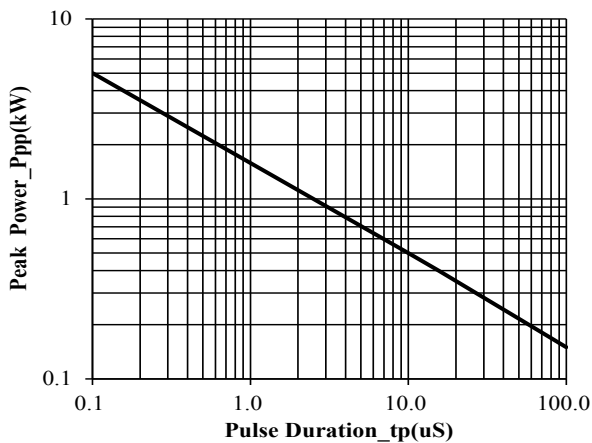
8 X 20us Pulse Waveform



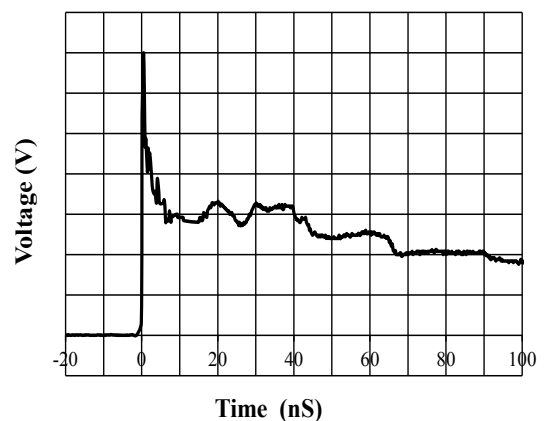
Junction Capacitance vs. Reverse Voltage



Clamping Voltage vs. Peak Pulse Current



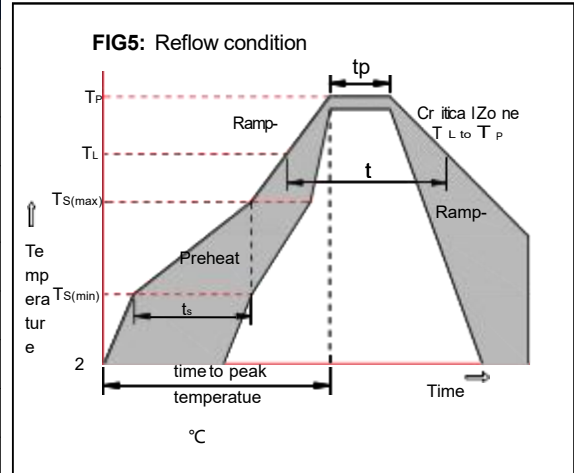
Peak Pulse Power vs. Pulse Time



IEC61000-4-2 Pulse Waveform

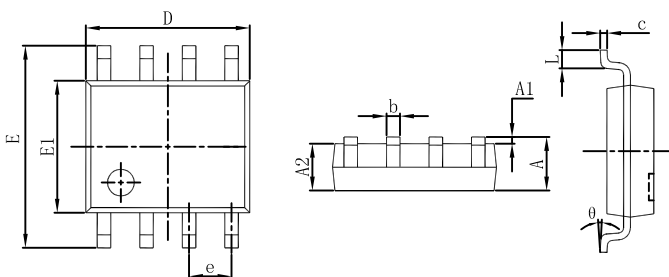
Soldering parameters

| Reflow Condition | | Pb-Free assembly (see as below) |
|---|-----------------------------------|------------------------------------|
| Pre Heat | -Temperature Min ($T_{s(min)}$) | +150°C |
| | -Temperature Max($T_{s(max)}$) | +200°C |
| | -Time (Min to Max) (ts) | 60-180 secs. |
| Average ramp up rate (Liquid us Temp (T_L) to peak) | | 3°C/sec. Max |
| $T_{s(max)}$ to T_L - Ramp-up Rate | | 3°C/sec. Max |
| Reflow | -Temperature(T_L)(Liquid us) | +217°C |
| | -Temperature(t_L) | 60-150 secs. |
| Peak Temp (T_P) | | +260(+0/-5)°C |
| Time within 5°C of actual Peak Temp (t_p) | | 30 secs. Max |
| Ramp-down Rate | | 6°C/sec. Max |
| Time 25°C to Peak Temp (T_P) | | 8 min. Max |
| Do not exceed | | +260°C |

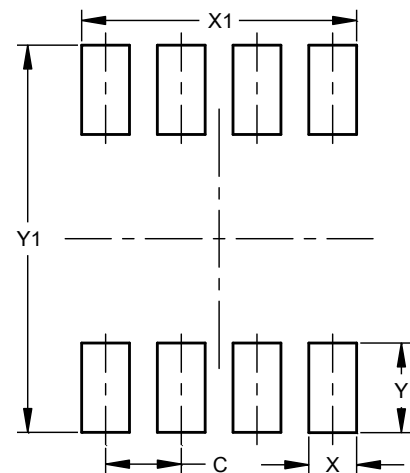


Package Dimensions & Suggested Pad Layout

SOP-8



| Symbol | Dimensions In Millimeters | | Dimensions In Inches | |
|----------|---------------------------|-------|----------------------|-------|
| | Min | Max | Min | Max |
| A | 1.350 | 1.750 | 0.053 | 0.069 |
| A1 | 0.100 | 0.250 | 0.004 | 0.010 |
| A2 | 1.350 | 1.550 | 0.053 | 0.061 |
| b | 0.330 | 0.510 | 0.013 | 0.020 |
| c | 0.170 | 0.250 | 0.007 | 0.010 |
| D | 4.800 | 5.000 | 0.189 | 0.197 |
| e | 1.270 (BSC) | | 0.050 (BSC) | |
| E | 5.800 | 6.200 | 0.228 | 0.244 |
| E1 | 3.800 | 4.000 | 0.150 | 0.157 |
| L | 0.400 | 1.270 | 0.016 | 0.050 |
| θ | 0° | 8° | 0° | 8° |



| Dimensions | Value (in mm) |
|------------|---------------|
| C | 1.27 |
| X | 0.70 |
| X1 | 4.51 |
| Y | 2.00 |
| Y1 | 7.00 |

Tape & reel specification

| Tape | | Symbol | Dimension (mm) |
|----------|--|-------------------|----------------|
| | | P0 | 4.00±0.20 |
| | | P1 | 8.00±0.20 |
| | | P2 | 2.00±0.20 |
| | | D0 | 1.55±0.20 |
| | | D1 | 1.55±0.20 |
| | | E | 1.75±0.15 |
| | | F | 5.50±0.20 |
| | | W | 12.00±0.20 |
| | | A0 | 7.00±0.20 |
| | | B0 | 5.70±0.20 |
| | | K0 | 1.35±0.20 |
| | | T | 0.23±0.20 |
| | | 13" Reel | |
| | | D3 | 73Min. |
| | | D4 | 13.5±2.5 |
| | | W1 | 16.0±3.0 |
| | | Quantity: 3000PCS | |
| 13" Reel | | D2 | 330.0±5.0 |
| | | D3 | 73Min. |
| | | D4 | 13.5±2.5 |
| | | W1 | 16.0±3.0 |
| | | Quantity: 4000PCS | |