

## Low Capacitance ESD Protection -ESDSLVU2.8

### Description

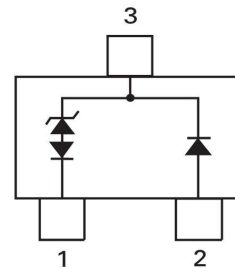
The ESDSLV2.8 of transient voltage suppressors are designed to protect low voltage ,the features integrated low capacitance compensation diodes that reduce the typical capacitance to 3pF per line. This .combined with low leakage current, means signal integrity is preserved in high-speed applications such as 10/100 Ethernet. The SLVU2.8-4 is in a Sot-23 package and may be used to protect two high-speed line pairs. The “flow-thru” design minimizes trace inductance and reduces voltage overshoot associated with ESD events. The low clamping voltage of the SLVU2.8-4 minimizes the stress on the protected IC

### Feature

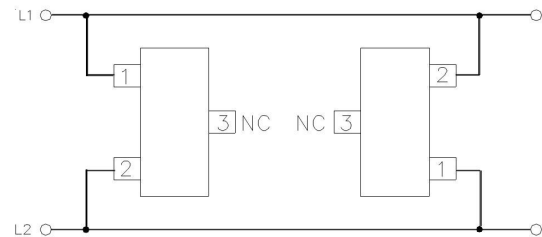
- Case :JEDEC SOT-23 package
- Low clamping voltage
- Low leakage current
- Small packaging options saves board space
- Low capacitance :2 pF typical
- Compatible with IEC 61000-4-2(ESD) :Air 15KV , Contact 8KV
- Compatible with IEC 61000-4-4(EFT) :40A ,5/50 nS
- Compatible with IEC 61000-4-5(Surge):24A

### Applications

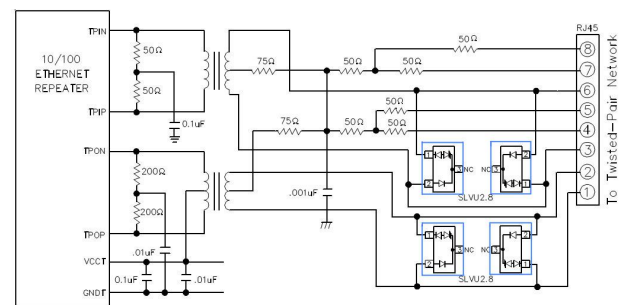
- WAN/LAN Equipment
- 10/100 Ethernet
- Personal digital assistants
- LAN devices
- Switching Systems
- Desktops, Servers, and Notebooks
- Instrumentation
- Analog Inputs



Schematic and PIN Configuration



Low capacitance protection of one high-speed line pair



10/100 Ethernet Protection Circuit

**Absolute Maximum Ratings**

Parameter	Symbol	Value	Units
Peak Current ( $t_p = 8/20 \mu s$ )	$P_{PK}$	400	W
Peak Current ( $t_p = 8/20 \mu s$ )	$I_{PP}$	24	A
IEC61000-4-2 (Contact)	$V_{ESD}$	8	KV
IEC61000-4-2 (Air)	$V_{ESD}$	15	KV
Lead Soldering Temperature	$T_L$	260 (10 sec)	$^{\circ} C$
Operating Temperature	$T_J$	-50 to 125	$^{\circ} C$
Storage Temperature Range	$T_{STG}$	-50 to 150	$^{\circ} C$

**Electrical Characteristics ( $T = 25^{\circ} C$ )**

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Stand-off Voltage	$V_{RWM}$	Pin 2 or 3 to 1			2.8	V
Reverse Breakdown Voltage	$V_{BR}$	$I_t = 1mA$	3			V
Reverse Leakage Current	$I_R$	$V_{RWM} = 5.0V, T = 25^{\circ}C$ (Pin 2 or 3 to 1)			1	$\mu A$
Clamping Voltage	$V_C$	$I_{PP} = 2A, t_p = 8/20\mu s$ (Pin 3 to 1)			3.9	V
Clamping Voltage	$V_C$	$I_{PP} = 5A, t_p = 8/20\mu s$ (Pin 3 to 1)			7	V
Clamping Voltage	$V_C$	$I_{PP} = 24A, t_p = 8/20\mu s$ (Pin 3 to 1)			12.5	V
Clamping Voltage	$V_C$	$I_{PP} = 5A, t_p = 8/20\mu s$ (Pin 2 to 1)			8.5	V
Clamping Voltage	$V_C$	$I_{PP} = 24A, t_p = 8/20\mu s$ (Pin 2 to 1)			15	V
Junction Capacitance	$C_J$	$V_R = 0V, f = 1MHz$ (Pin 2 to 1)		2	3	pF

Rating & Characteristic Curves

Figure 1- Power Derating Curve

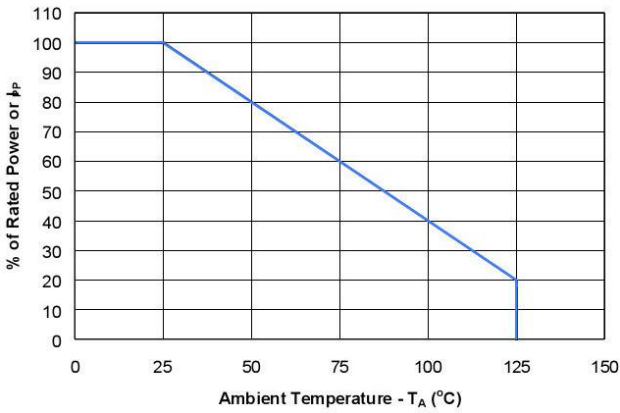


Figure 2- Clamping Voltage vs Current

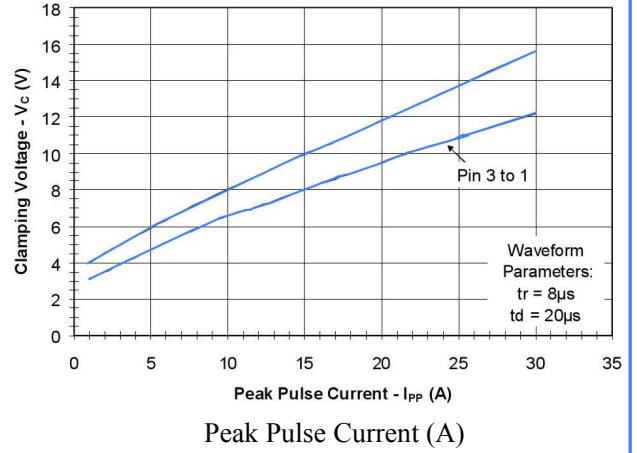


Figure 3- Typical Junction Capacitance

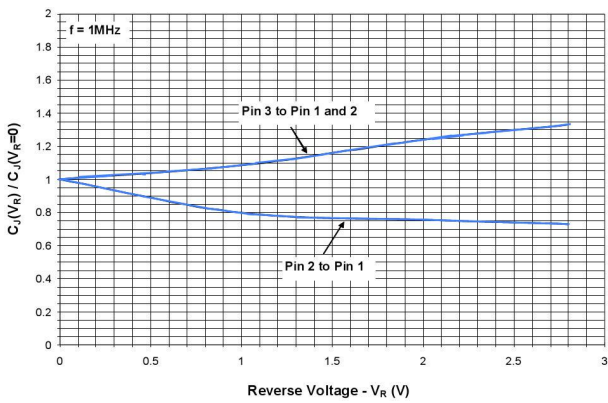


Figure 4- Pulse Waveform

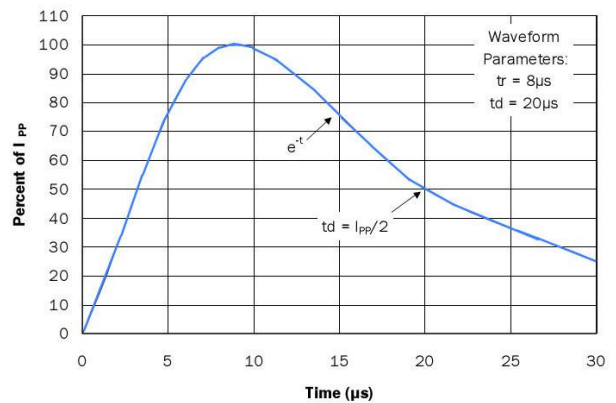


Figure 5- Peak Power Derating Curve

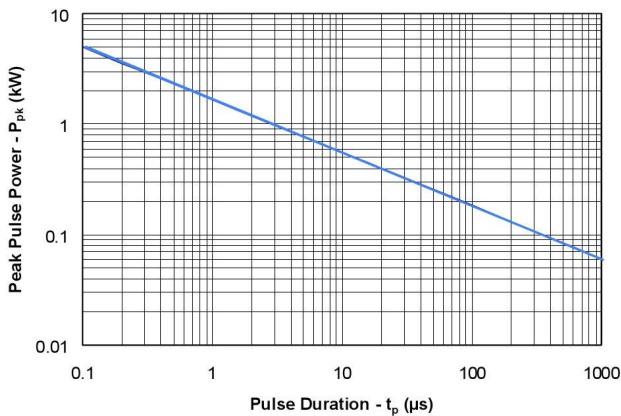
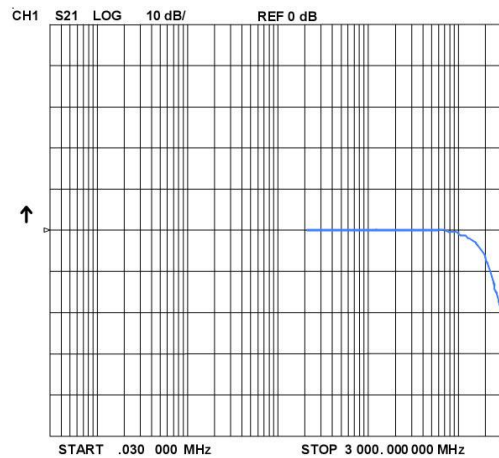
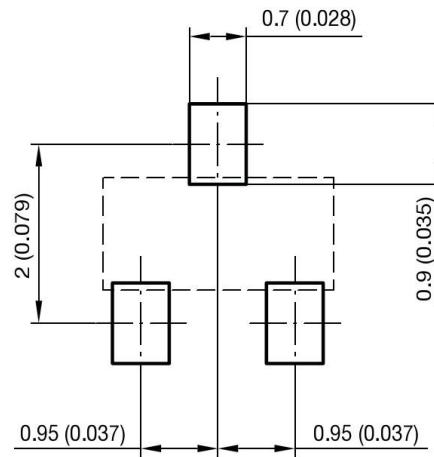
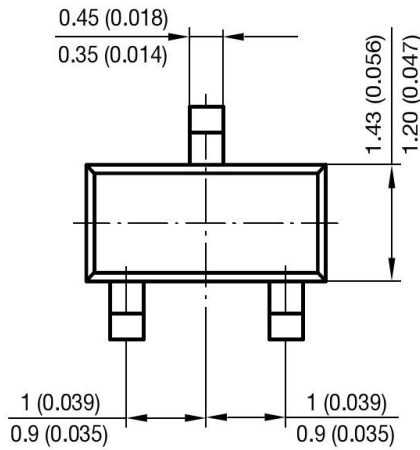
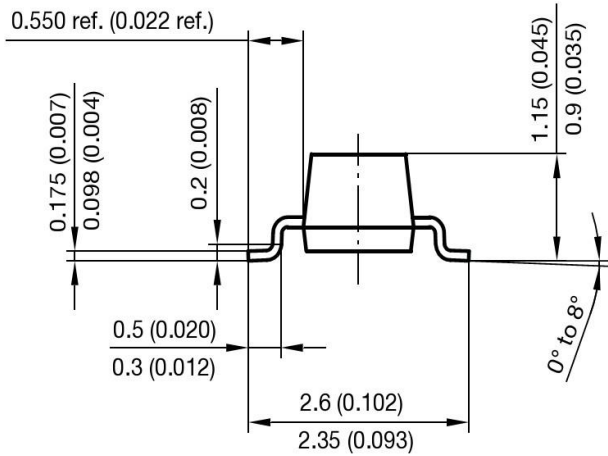
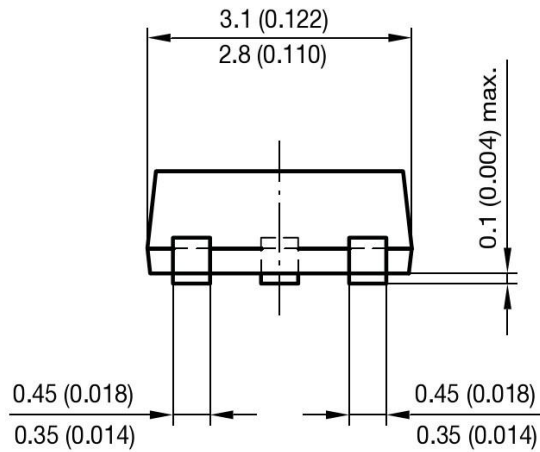


Figure 6- Insertion Loss





Mounting Pad Layout

**Disclaimer**

Specifications are subject to change without notice.

The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.

Users should verify actual device performance in their specific applications.

单击下面可查看定价，库存，交付和生命周期等信息

[>>Yint\(音特电子\)](#)