

TVS Array For ESD and Latch Up Protection

Features

- ◆ 100W peak pulse power(8/20 μ s)
- ◆ Protects two line pairs(four lines)
- ◆ Ultra low leakage: nA level
- ◆ Low operating voltage: 2.8V
- ◆ Low capacitance
- ◆ Ultra low clamping voltage
- ◆ JEDEC SO-8 package
- ◆ Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
Air discharge: ± 30 kV
Contact discharge: ± 30 kV
 - IEC61000-4-4 (EFT) 40A (5/50ns)
 - IEC61000-4-5 (Lightning) 10A (8/20 μ s)
- ◆ RoHS Compliant

Mechanical Characteristics

- ◆ Package: SO-8
- ◆ Lead Finish: Matte Tin
- ◆ Case Material: "Green" Molding Compound.
- ◆ UL Flammability Classification Rating 94V-0
- ◆ Moisture Sensitivity: Level 3 per J-STD-020
- ◆ Terminal Connections: See Diagram Below

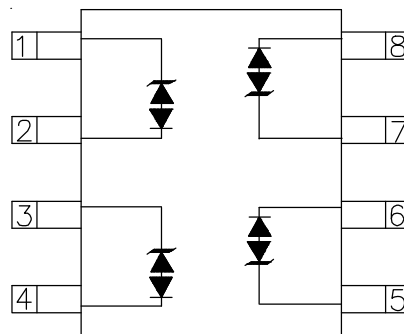
Applications

- ◆ Base Station
- ◆ Analog Inputs
- ◆ Switch Systems
- ◆ 10/100/1000 Ethernet
- ◆ WAN/LAN Equipment
- ◆ Desktops, Servers, and Notebooks
- ◆ Low Voltage Interfaces

Ordering Information

Part Number	Qty per Reel	Reel Size
SLVU2.8-4	2500	13Inch

Dimensions and Pin Configuration



Circuit and Pin Schematic



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Absolute Maximum Ratings (T_A=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power(8/20µs)	Ppk	100	W
Peak Pulse Current(8/20µs)	I _{PP}	10	A
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	V _{ESD}	±30 ±30	kV
Operating Temperature Range	T _J	-40 to +125	°C
Storage Temperature Range	T _{stg}	-55 to +150	°C

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

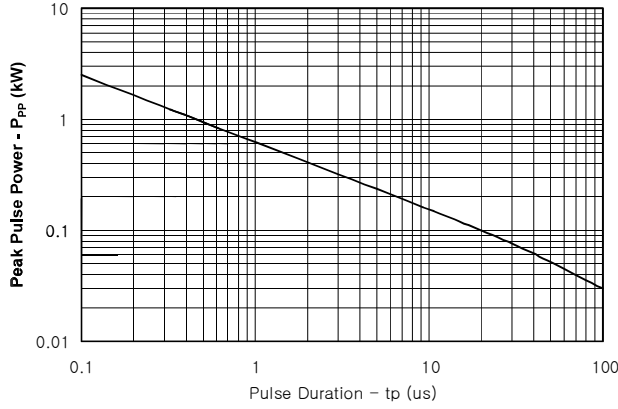
Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Working Voltage	V _{RWM}			2.8	V	
Punch-Through Voltage	V _{PT}	3.5	3.8	4.3	V	I _{PT} = 2µA
Snap-Back Voltage	V _{SB}	2.8				I _{SB} = 50mA
Reverse Leakage Current	I _R			1.0	µA	V _{RWM} = 2.8V
Clamping Voltage	V _C			5.5	V	I _{PP} = 1A (8 x 20µs pulse)
Clamping Voltage	V _C			10	V	I _{PP} = 10A (8 x 20µs pulse)
Variation in capacitance with reverse bias			1.3		pF	Pins 1,8 to 2,7 and pins 3,6 to 4,5 V _R = 0 to 2.8V, f = 1MHz
Junction Capacitance	C _J		4.7	6	pF	Pins 1,8 to 2,7 and pins 3,6 to 4,5 V _R = 2.8V, f = 1MHz



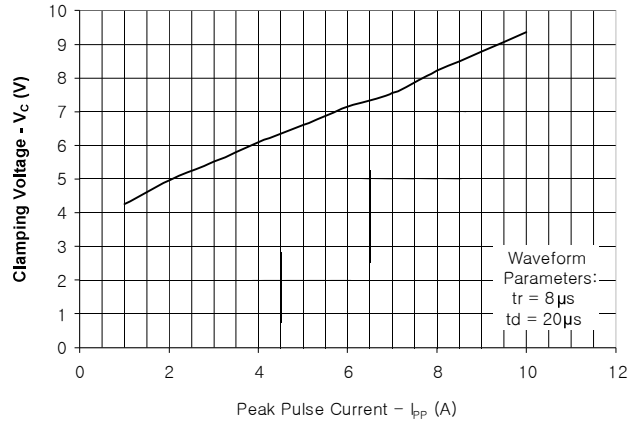
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Typical Performance Characteristics (T_A=25°C unless otherwise Specified)

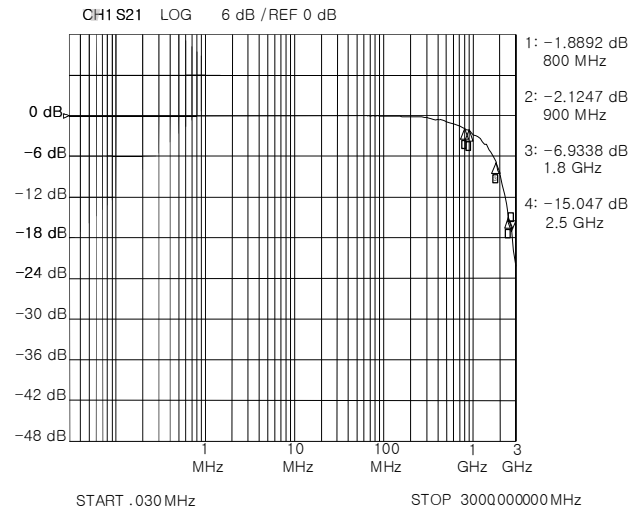
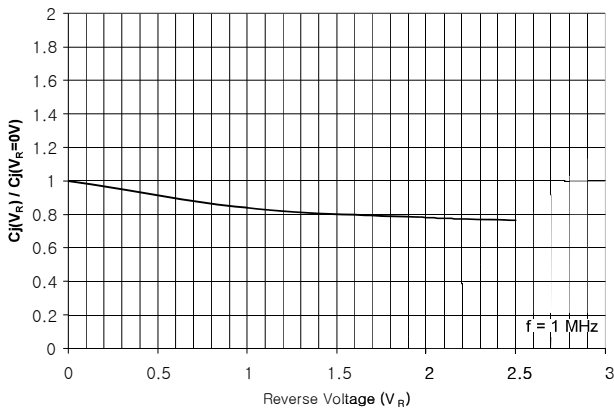
Non-Repetitive Peak Pulse Power vs. Pulse Time



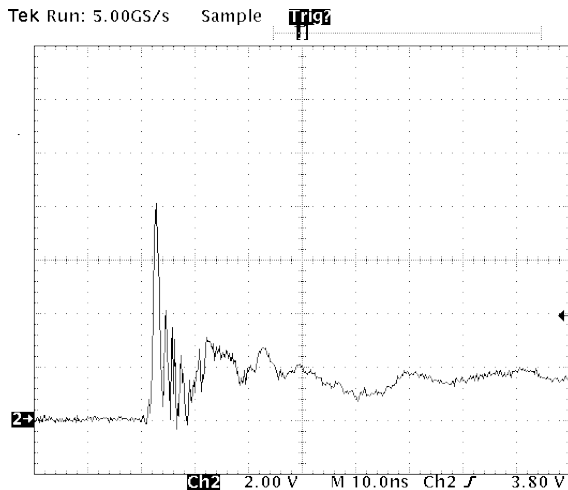
Clamping Voltage vs. Peak Pulse Current



Normalized Junction Capacitance vs. Reverse Voltage

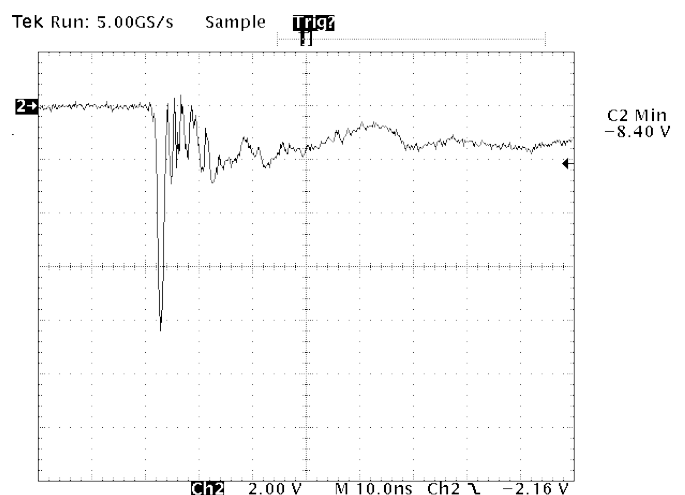


ESD Clamping (8kV Contact per IEC 61000-4-2)



Note: Data is taken with a 10x attenuator

ESD Clamping (-8kV Contact per IEC 61000-4-2)



Note: Data is taken with a 10x attenuator

