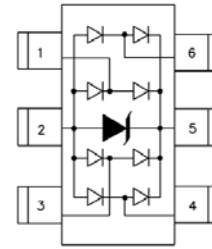


Description

The SRV05-4 is low capacitance transient voltage suppressor array for high speed data interface that designed to protect sensitive electronics from damage or latch-up due to ESD lightning, and other voltage induced transient events. All pins are rated to withstand 25kv ESD pulses using the IEC 61000-4-2 contact discharge method, which can meet the requirement of level 4.



Feature

- 500W peak pulse power ($t_p = 8/20\mu s$)
- SOT23-6L package
- Working voltage: 5 V
- Low clamping voltage
- Low capacitance
- RoHS Compliant Transient Protection for High Speed Data Lines to
IEC61000-4-2(ESD) $\pm 15kV$ (air), $\pm 8kV$ (Contact)
IEC61000-4-4(EFT) 40A(5/50ns)
IEC61000-4-5(lightning) 24A(8/20us)

Applications

- USB 2.0 Power & Data Line Protection
- DVI & HDMI Port Protection
- Serial ATA Port Protection
- Mobile Handsets
- Digital Cameras and camcorders
- PDA & MP3 Players
- Digital TV and Set-top Boxes
- Other Portable Electronic Components

Electrical characteristics per line@(unless otherwise specified)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Reverse Stand-off Voltage	V_{RWM}				5	V
Reverse Breakdown Voltage	V_{BR}	$I_t = 1mA$	6			V
Reverse Leakage Current	I_R	$V_{RWM} = 5.0V, T = 25^\circ C$			1	μA
Clamping Voltage	V_C	$I_{PP} = 1A, t_p = 8/20\mu s$			12.5	V
Clamping Voltage	V_C	$I_{PP} = 5A, t_p = 8/20\mu s$			28.0	V
Junction Capacitance	C_J	$V_R = 0V, f = 1MHz$		2.5	5	pF

Absolute maximum rating @25°C

Rating	Symbol	Value	Units
Peak Pulse Power ($t_p=8/20\mu s$)	P_{pp}	350	W
Operating Temperature	T_J	-55 to +150	°C
Storage Temperature	T_{STG}	-55 to +150	°C

Typical Characteristics

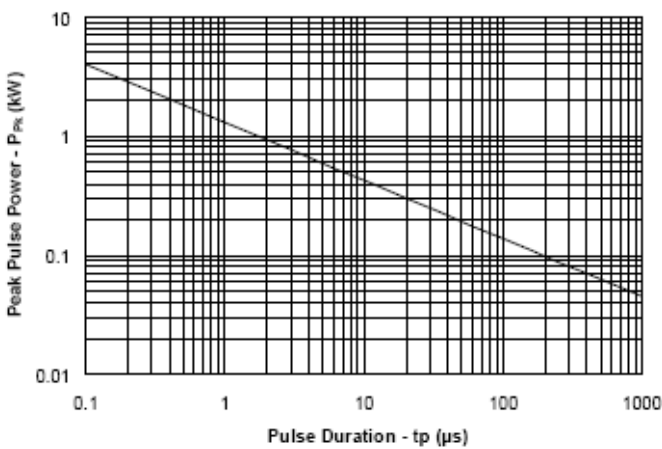


Fig1. Non-Repetitive Peak Pulse Power vs. Pulse time

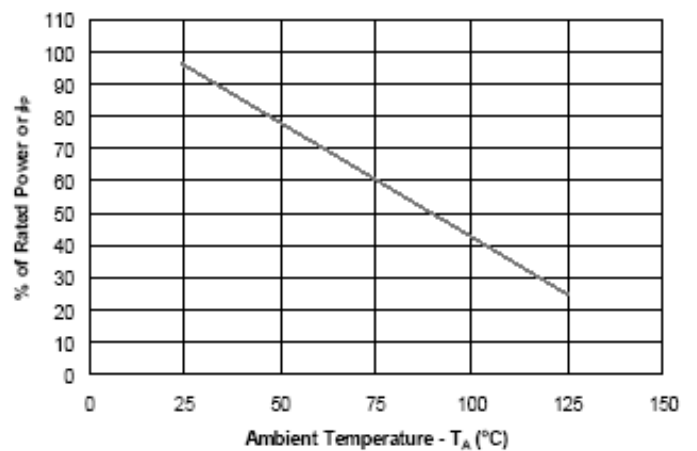


Fig2. Power Derating Curve

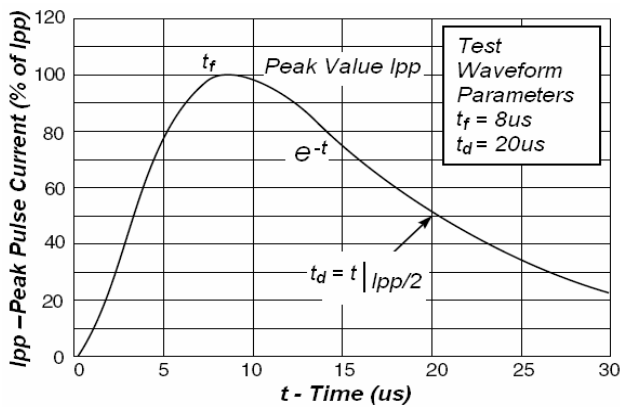


Fig3. Pulse Waveform

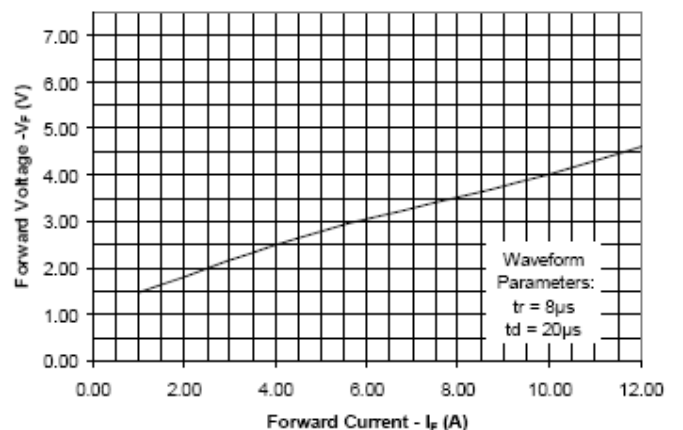


Fig4. Forward Voltage vs. Forward Current

Applications informations

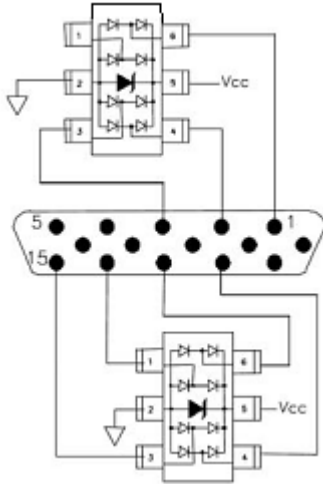


Fig5.Video Interface Protection

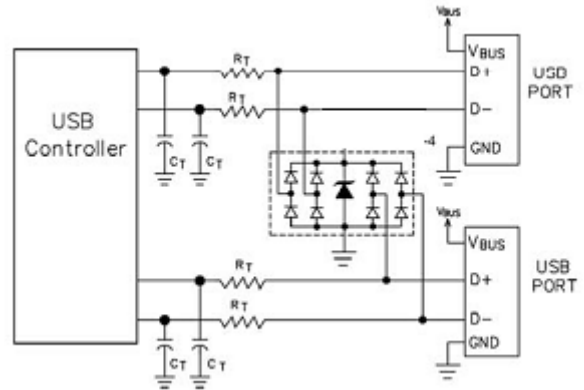


Fig6.Dual USB Port Protection

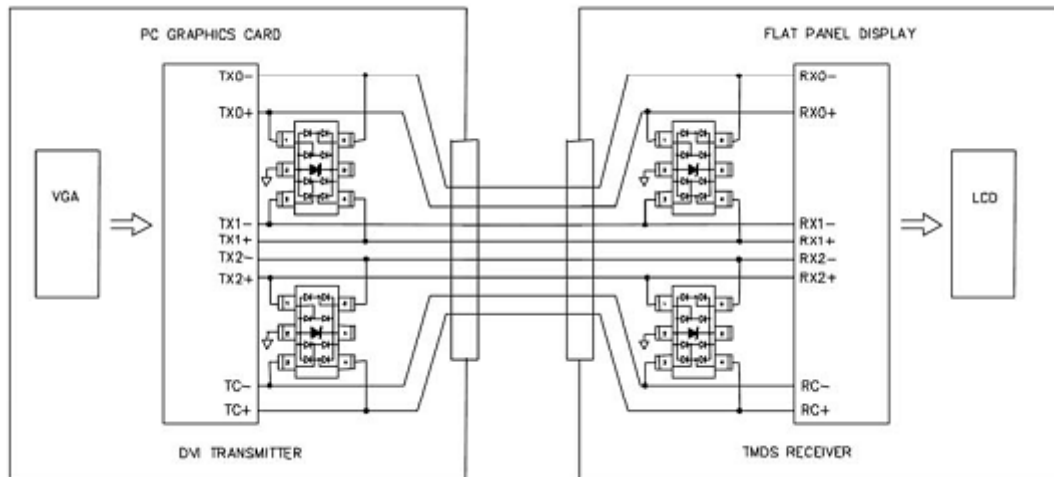
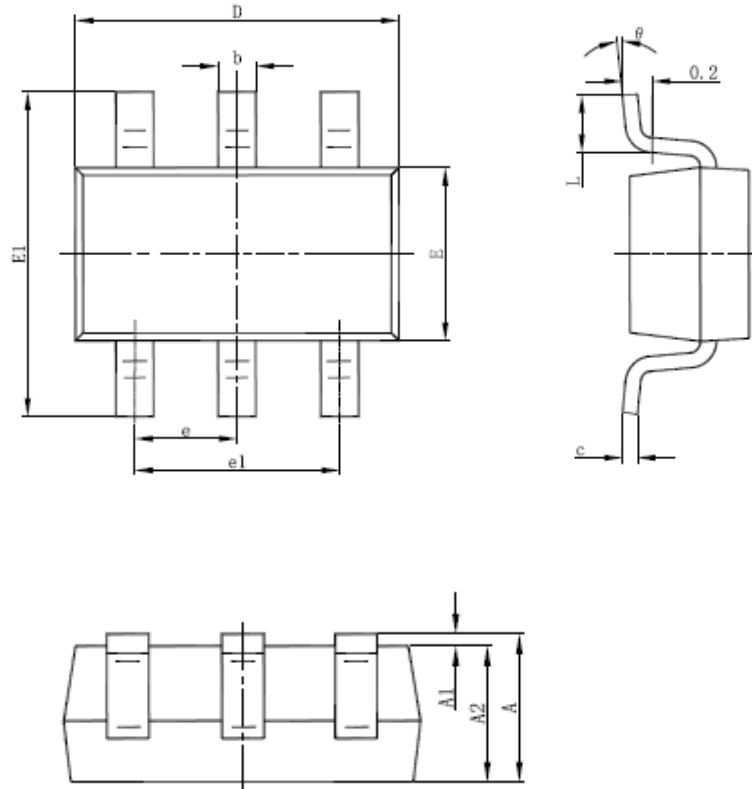



Fig7.Digital Video Interface (DVI) Protection

Product dimension (SOT23-6L)



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
E	1.500	1.700	0.059	0.067
E1	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°


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