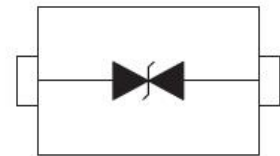
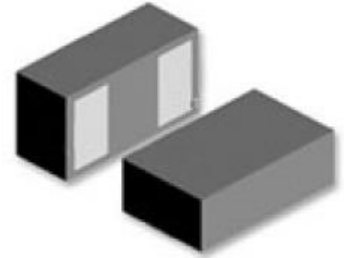


Ultra-low capacitance ESD Suppressor

超低电容 ESD 抑制器

- ESD protection of high-speed data lines exceeding IEC61000-4-2:
Contact discharge typical 8 kV, max 15kV
Air discharge typical 15 kV, max 25kV
- Extremely small form factor down to 0.60x 0.30 x 0.30 mm³
- Continue working voltage: 12 Vdc max.
- Extremely low capacitance: 0.05pF typ.
- Very low clamping voltage: 35 V typ.
- Very low leakage current: <0.1 uA typ.
- Pb-free (RoHS compliant) package
- 针对高速数据传输线路的 ESD 保护:
IEC61000-4-2,
接触放电典型值 8kV, 最大 15kV
空气放电典型值 15kV, 最大 25kV
- 极小的产品尺寸: 0.60 x 0.30 x 0.30 mm³
- 持续工作电压: 最大 12Vdc
- 超低电容: 典型值 0.05pF
- 非常低的钳位电压: 典型值 35V
- 超低漏电流: 一般小于 0.1uA
- 无铅封装



Schematic Diagram

Application

应用

- Computers and peripherals, HDTV Equipment
- DVD Players, Satellite radio, Cell phones, Digital still cameras, Digital camcorders
- Set top boxes
- High speed data ports: USB 2.0/3.0, IEEE 1394b, HDMI 1.3, DVI
- Keyboard/key switch
- 计算机及外设, HDTV 设备等
- DVD 播放器, 卫星广播, 移动电话, 数码相机, 数码 DV 等
- 机顶盒
- 高速数据接口: USB 2.0/3.0, IEEE 1394b, HDMI 1.3, DVI
- 按键开关

Electrical Characteristics
电气特性

Specification	Units	Minimum	Typical	Maximum
Operating Voltage 工作电压	V (DC)	-	-	12
Trigger Voltage 触发电压	V	-	300	-
Clamping Voltage 钳位电压	V	-	35	-
ESD Threat Voltage Capability ESD 保护能力	kV	IEC 61000-4-2, level 4 8 kV typical, 15kV max. Direct Discharge 15kV typical, 25kV max. Air Discharge		
Capacitance (@1MHz) 电容	pF	-	0.05	-
Leakage Current (@ 12Vdc) 漏电流	uA	-	0.01	0.1
Operating Temperature 工作温度	°C	-55 ~ +125		

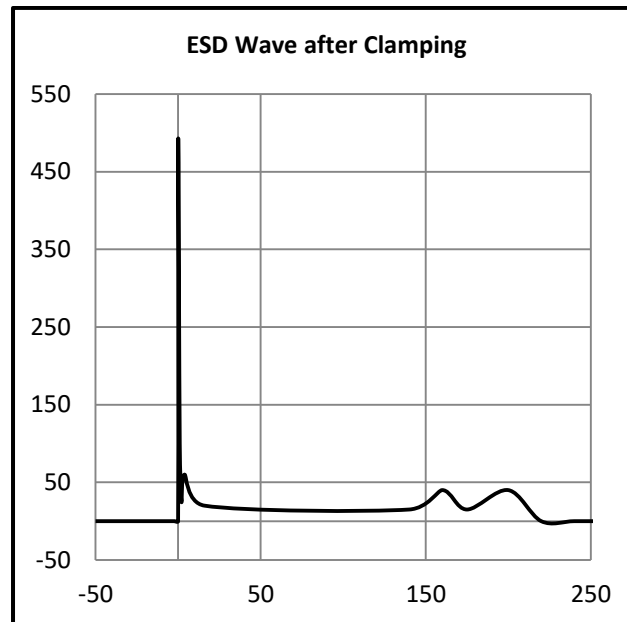
Note: Trigger and clamping voltage are measured per IEC61000-4-2, 8kV contact discharge method.

After reliability tests such as high temp. storage, temp. cycles, continuous ESD strike etc., the maximum leakage current is less than 10uA.

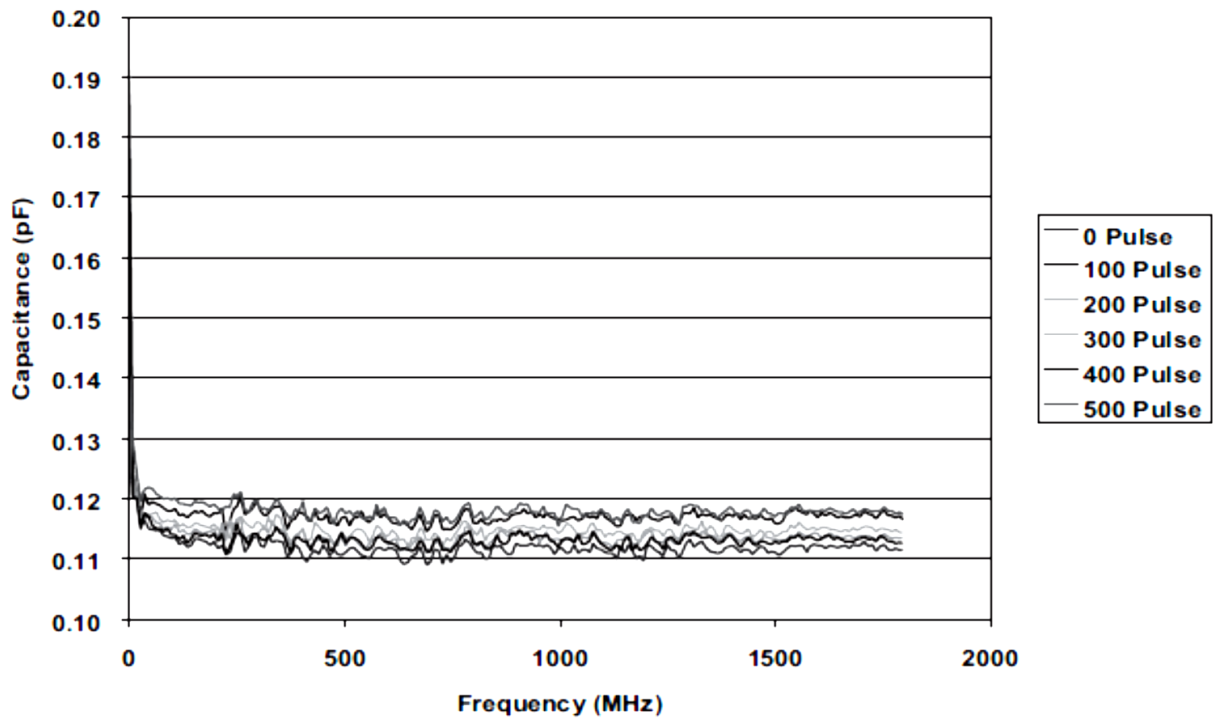
ESD Performance

The device react within 1ns to clamp the ESD voltage.

器件在 1ns 内快速反应以钳制 ESD 电压



Signal Frequency does not affect the Capacitance of the Device
 器件电容不受信号频率影响



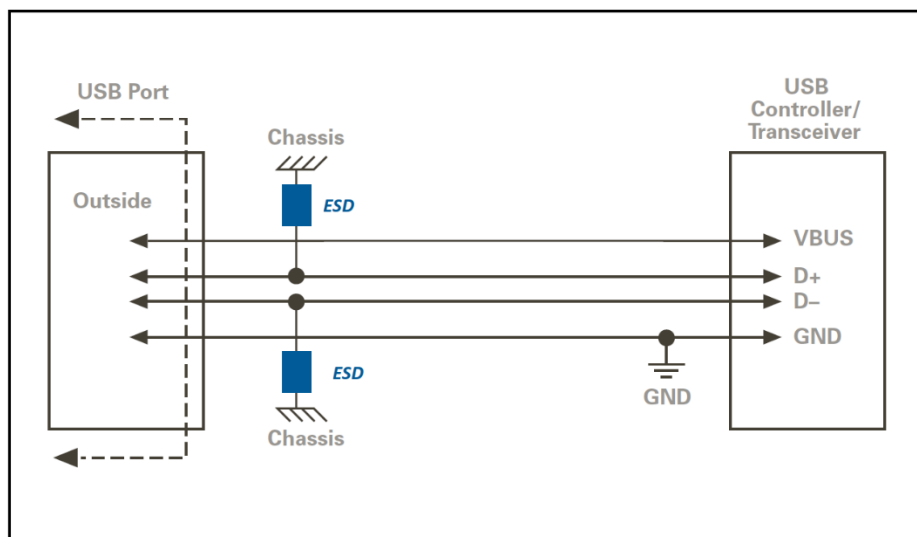
Application Examples

应用范例

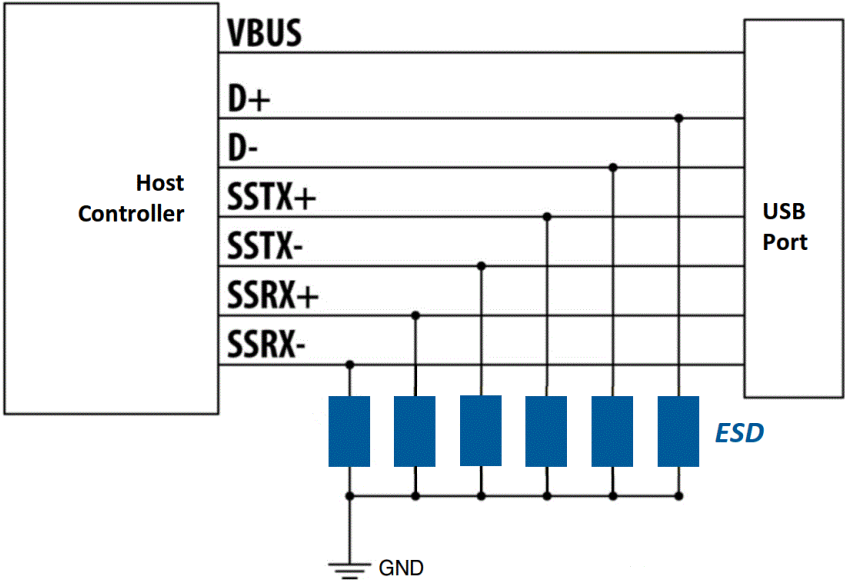
Single channel, Bi-directional

单通道, 双向无极性

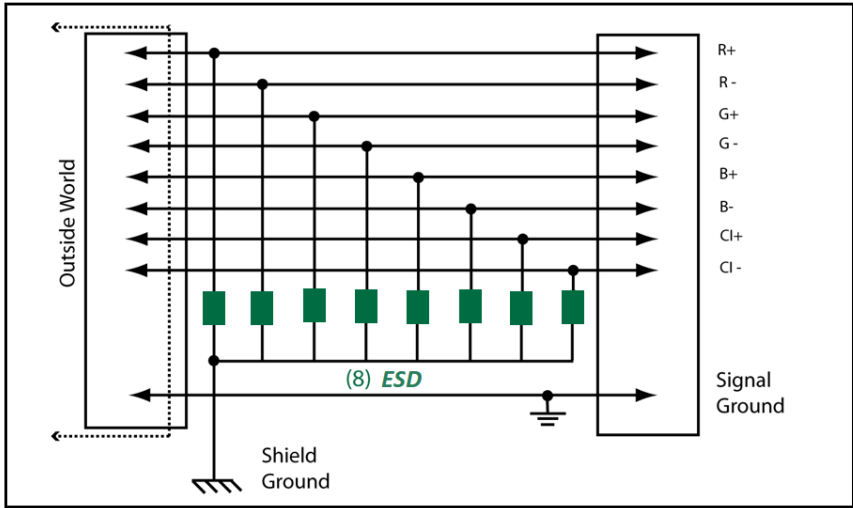
USB 2.0

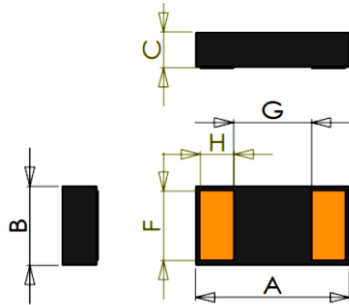


USB 3.0

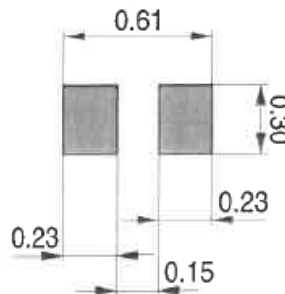


HDMI

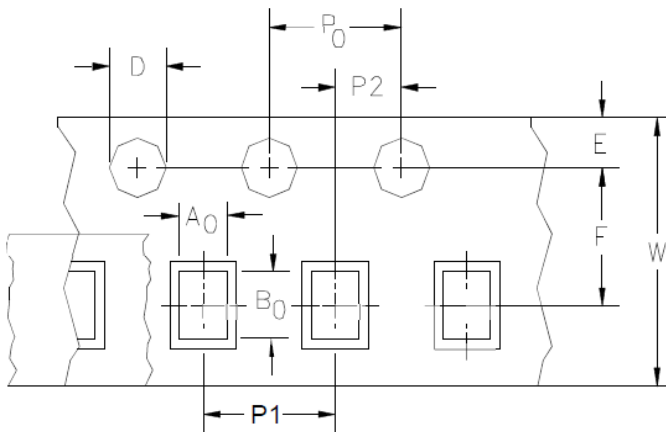


Package outline
封装尺寸


Dim.	millimeters		
	Min.	Typ.	Max.
A	0.50	0.60	0.70
B	0.25	0.30	0.35
C	0.25	0.30	0.35
G	0.16	0.18	0.20
F	0.25	0.27	0.295
H	0.18	0.20	0.22

Soldering pad (mm)
建议焊盘尺寸


Note: Print solder in thickness of 0.08mm 注: 锡膏印刷厚度 0.08 毫米

Standard Packing
标准包装


Dimension	Typical
	(mm)
A0	0.38
B0	0.68
D	1.55
P0	4.00
P1	2.00
P2	2.00
E	1.75
F	3.50
W	8.00

15000pcs in 7" reel per EIA Standard 481.

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