

DFN1006-2L ESD 静电保护二极管

■Features 特点

Ultra-low capacitance ESD Protection 极低电容静电保护

- $\pm 8\text{kV}$ Contact Discharge 接触放电

- $\pm 15\text{kV}$ Air Discharge 空气放电

■Applications 应用

Notebooks Computer 笔记本电脑

SIM Ports and Ethernet 用户识别和以太网

USB&ATM Interface 移动 U 盘及自动柜员机接口

Monitors and flat panel display 监视器和平板显示器

■Internal Schematic Diagram 内部结构



■Absolute Maximum Ratings 最大额定值

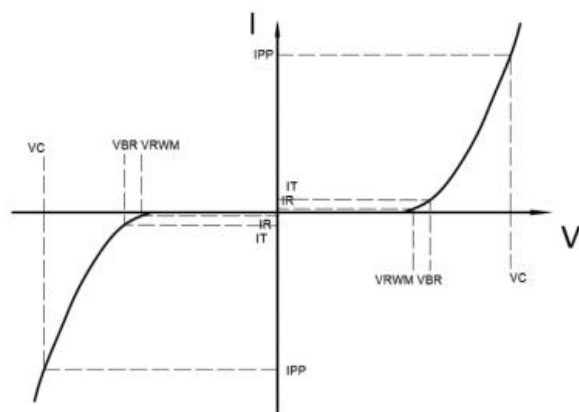
Characteristic 特性参数	Symbol 符号	Rat 额定值	Unit 单位
ESD (IEC61000-4-2 contact discharge) @25°C接触放电	V_{ESD}	± 8	KV
ESD (IEC61000-4-2 air discharge) @25°C 空气放电	V_{ESD}	± 15	KV
Peak Pulse Current @25°C峰值脉冲电流	I_{PP}	3	A
Peak Pulse Power @25°C峰值脉冲功率	P_{PK}	75	W
Lead Temperature 管脚温度	T_{L}	260	°C
Operating Temperature 工作温度	T_{op}	-40~85	°C
Junction Temperature 结温	T_{J}	125	°C
Storage Temperature 储存温度	T_{stg}	-55~150	°C

■ Electrical Characteristics 电特性

($T_A=25^{\circ}\text{C}$ unless otherwise noted 如无特殊说明, 温度为 25°C)

Characteristic Parameters 特性参数	Symbol 符号	Min 最小值	Typ 典型值	Max 最大值	Unit 单位	Condition 条件
Reverse Stand-off Voltage 反向工作电压	V_{RWM}			5	V	
Reverse Breakdown Voltage 反向击穿电压	V_{BR}	6			V	$I_{\text{T}}=1\text{mA}$
Reverse Leakage Current 反向漏电流	I_{R}			10	nA	$V_{\text{RWM}}=5\text{V}$
Trigger Voltage 触发电压	V_{T}		450		V	$I_{\text{PP}}=1\text{A}, t_{\text{p}}=8/20\mu\text{s}$
Clamping Voltage 钳位电压	V_{C}		40		V	$I_{\text{PP}}=3\text{A}, t_{\text{p}}=8/20\mu\text{s}$
Diode Capacitance 二极管电容	C_{D}		0.05		pF	$V_{\text{R}}=0\text{V}, f=1\text{MHz}$

Symbol	Parameters
V_{RWM}	Peak Reverse Working Voltage
I_{R}	Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_{T}
I_{T}	Test Current
I_{PP}	Maximum Reverse Peak Pulse Current
V_{C}	Clamping Voltage @ I_{PP}
I_{F}	Forward Current
V_{F}	Forward Voltage @ I_{F}



■ Typical Characteristic Curve 典型特性曲线

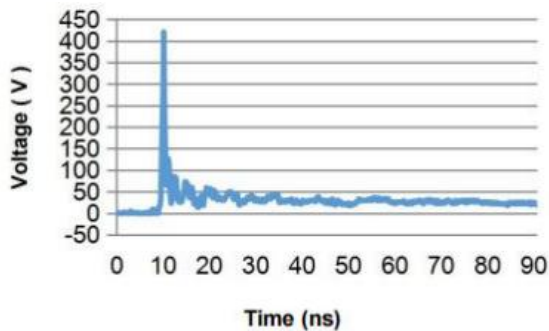


Fig.1 Typical ESD Response
(IEC 61000-4-2, 8kV contact discharge)

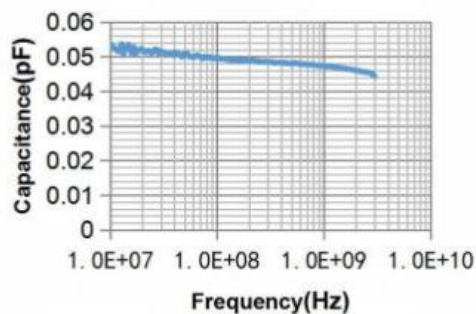


Fig.2 Typical Device Capacitance VS. Frequency

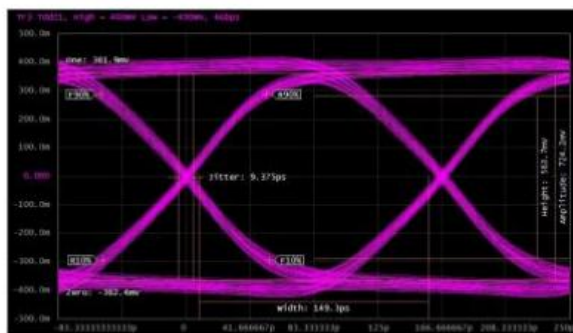
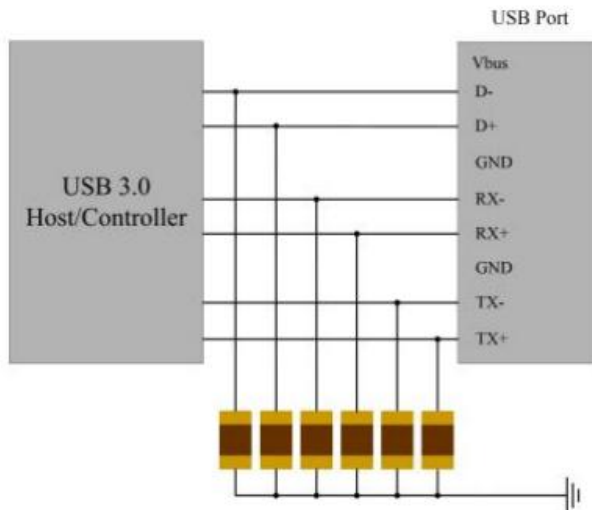
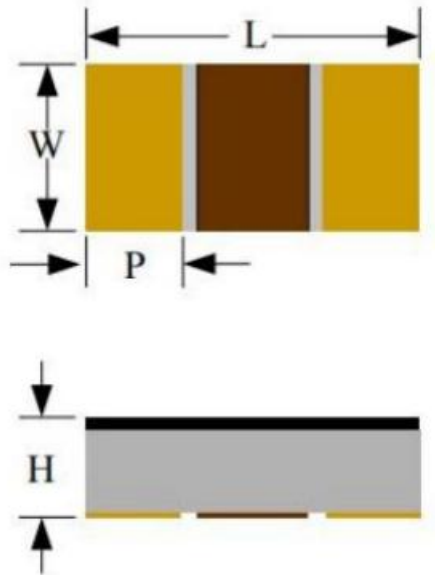


Fig.3 HDMI 2.0 Mask at 6.0 Gbps

■ Typical Applications 典型应用



■ **Dimension** 外形封装尺寸



Dimension	Unit: Millimeters	
	Min.	Max.
L	0.90	1.10
W	0.42	0.62
p	0.15	0.35
H	0.25	0.45