

DFN1006-2L ESD 静电保护二极管

■ Features 特点

IEC 61000-4-2 Level 4 ESD Protection 静电保护

- ±8kV Contact Discharge 接触放电

- ±15kV Air Discharge 空气放电

Ultra-low capacitance 极低电容

■ Applications 应用

USB Ports 接口电路

HDMI 高清数字多媒体

Notebooks & Handhelds 笔记本或手持机

Cellular handsets and accessories 蜂窝手机及配件

■ Internal Schematic Diagram 内部结构



DFN1006-2L

■ Absolute Maximum Ratings 最大额定值

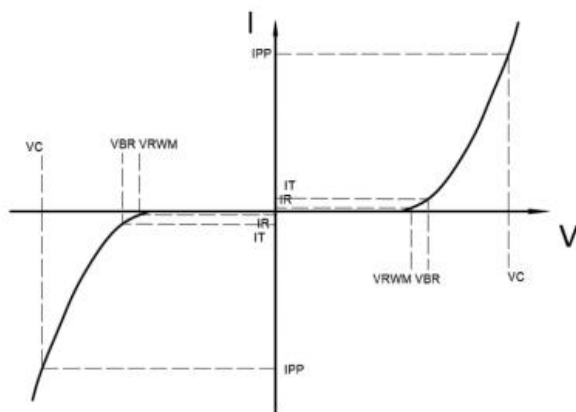
Characteristic 特性参数	Symbol 符号	Rat 额定值	Unit 单位
ESD (IEC61000-4-2 contact discharge) @25°C接触放电	V_{ESD}	±8	KV
ESD (IEC61000-4-2 air discharge) @25°C 空气放电	V_{ESD}	±15	KV
Lead Temperature 管脚温度	T_L	260	°C
Operating Temperature 工作温度	T_{op}	-40~85	°C
Junction Temperature 结温	T_J	125	°C
Storage Temperature 储存温度	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 Leakage Current 反向漏电流	I_{R}			0.01	μA	$V_{\text{RWM}}=15\text{V}$
Clamping Voltage 钳位电压	V_{C}			40	V	
Trigger Voltage 触发电压	V_{T}			450	V	
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

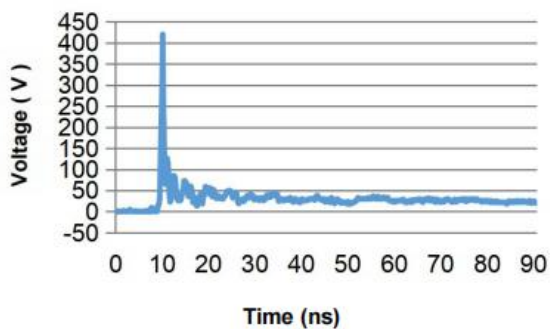


Fig.1 Typical ESD Response
(IEC 61000-4-2, 8kV contact discharge)

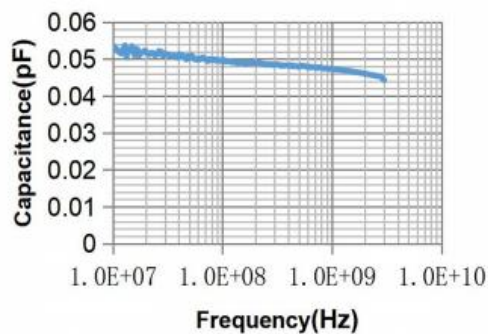


Fig.2 Typical Device Capacitance VS. Frequency

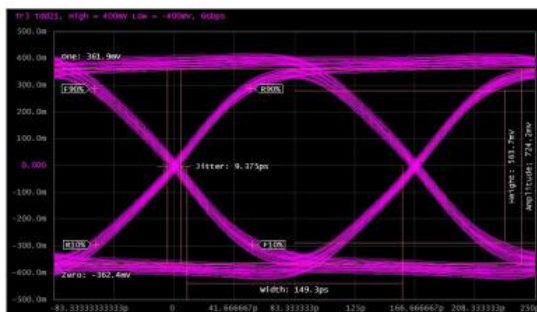
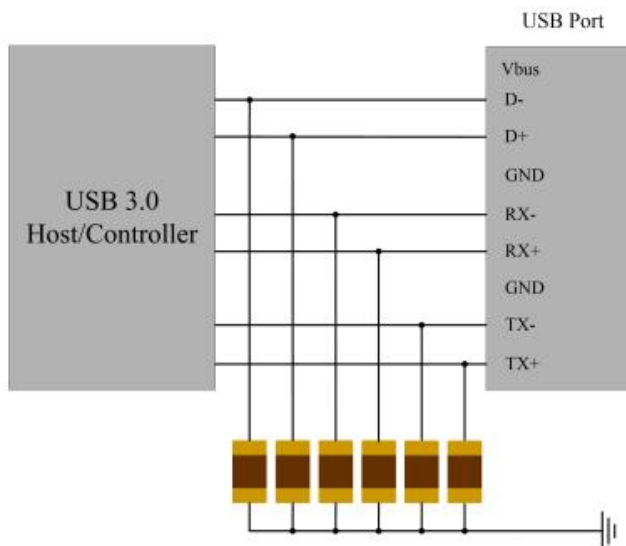
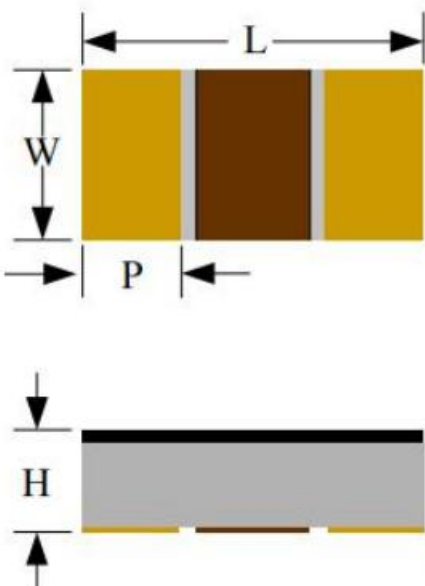


Fig.3 HDMI 2.0 Mask at 6.0 Gbps

■ Typical Application 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