

DFN1610-6L ESD 静电保护二极管

■ Features 特点

Un-directional ESD Protection 单向静电保护

Ultra-low capacitance 极低电容

■ 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

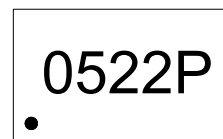
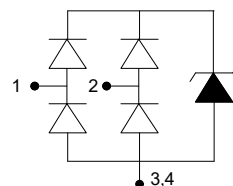
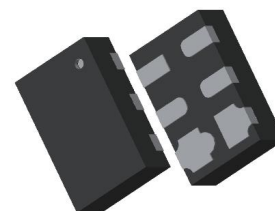
Monitors and flat panel display 监视器和平板显示器

■ Internal Schematic Diagram 内部结构

■ Device Marking 产品打标

■ 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}	± 12	KV
ESD (IEC61000-4-2 air discharge) @25°C空气放电	V_{ESD}	± 17	KV
Peak Pulse Power @25°C峰值脉冲功率	P_{PK}	60	W
Peak Pulse Current @25°C峰值脉冲电流	I_{PP}	4	A
Lead Temperature 管脚温度	T_L	260	°C
Lead Solder Time 管脚焊接时间	T_L	10	S
Operating Temperature 工作温度	T_{op}	-40~85	°C
Junction Temperature 结温	T_J	-55~125	°C
Storage Temperature 储存温度	T_{stg}	-55~150	°C

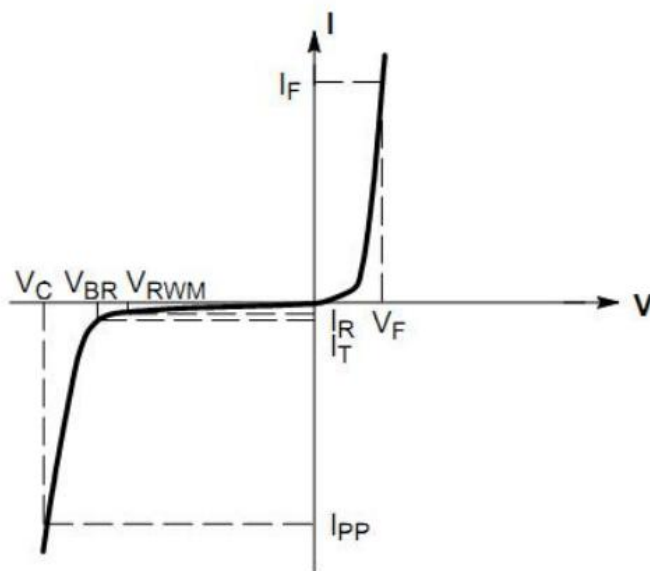


■ Electrical Characteristics 电特性

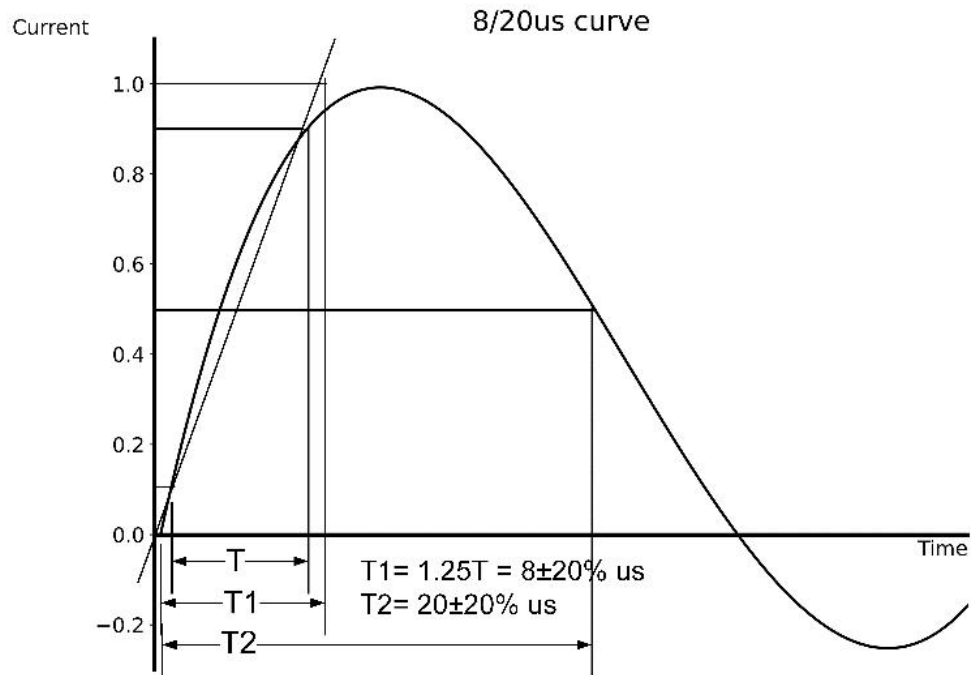
($T_A=25^{\circ}\text{C}$ unless otherwise noted 如无特殊说明, 温度为 25°C)

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		9.5	V	$I_{\text{T}}=1\text{mA}$
Reverse Leakage Current 反向漏电流	I_{R}			1	μA	$V_{\text{RWM}}=5\text{V}$
Clamping Voltage 钳位电压	V_{C}		8.5	10	V	$I_{\text{PP}}=1\text{A}$, $t_{\text{p}}=8/20\mu\text{s}$
Clamping Voltage 钳位电压	V_{C}		12	15	V	$I_{\text{PP}}=4.5\text{A}$, $t_{\text{p}}=8/20\mu\text{s}$
Diode Capacitance 二极管电容	C_{D}	I/O to GND Between I/O	0.6 0.3	0.8 0.4	pF	$V_{\text{R}}=0\text{V}$, $f=1\text{MHz}$

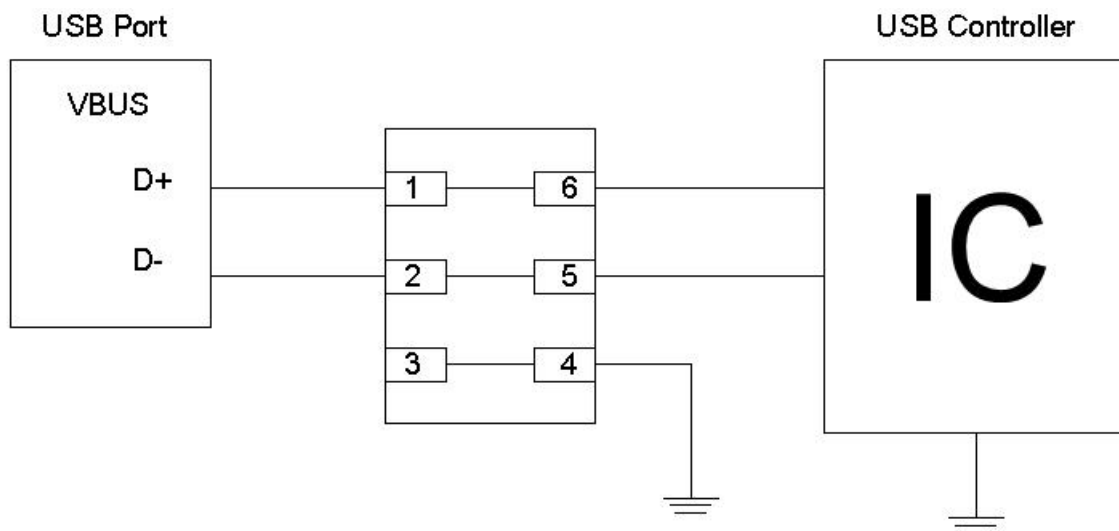
V_{RWM}	Reverse Working Voltage 反向工作电压
$V_{\text{R(BR)}}$	Reverse Breakdown Voltage 反向击穿电压@ $I_{\text{T}}=1\text{mA}$
I_{T}	Test Current 测试电流
I_{R}	Reverse Leakage Current 反向漏电流@ V_{RWM}
V_{C}	Clamping Voltage 钳位电压
I_{PP}	Reverse Peak Pulse Current 浪涌电流
C_{D}	Diode Capacitance 电容 $V_{\text{IO}}=0\text{V}$, $f = 1\text{MHz}$



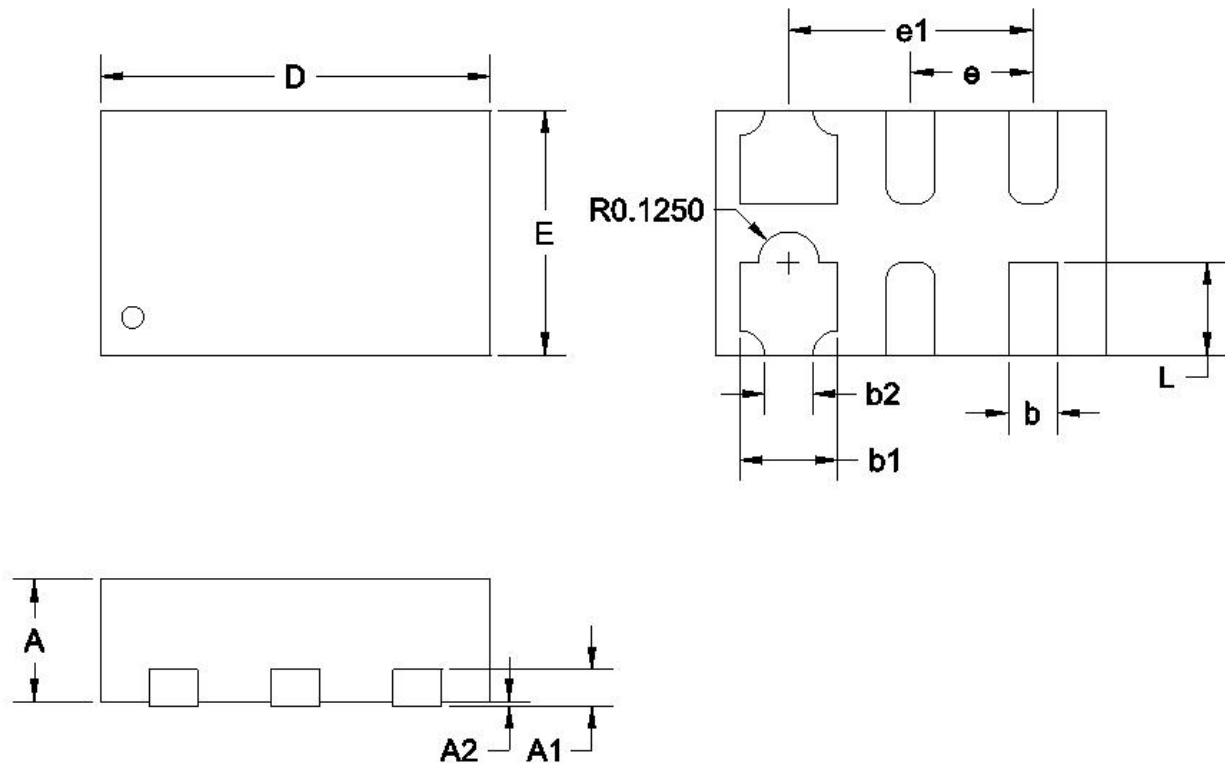
■ Typical Characteristic Curve 典型特性曲线



■ Typical Application 典型应用



■ Dimension 外形封装尺寸



Package Dimensions in Millimeter			
Symbols	Min	Nom	Max
A	0.45	0.50	0.55
A1	0.15REF		
A2	0.00	0.02	0.05
D	1.55	1.60	1.65
E	0.95	1.00	1.05
L	0.33	0.38	0.43
b	0.15	0.20	0.25
b1	0.35	0.40	0.45
b2	0.20REF		
e	0.50BSC		
e1	1.00BSC		