



安徽富信半导体科技有限公司

ANHUI FOSAN SEMICONDUCTOR TECHNOLOGY CO., LTD.

FSUC10F3V4U

DFN2510-10L 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

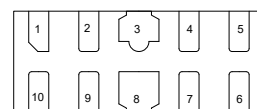
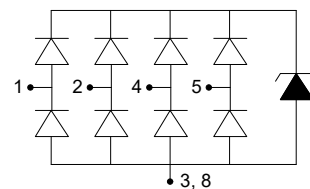
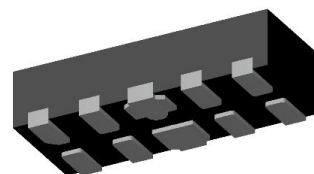
■ Applications 应用

Notebooks Computer 笔记本电脑

SIM Ports and Ethernet 用户识别和以太网

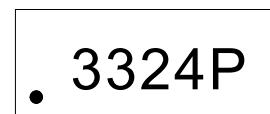
USB&ATM Interface 移动 U 盘及自动柜员机接口

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

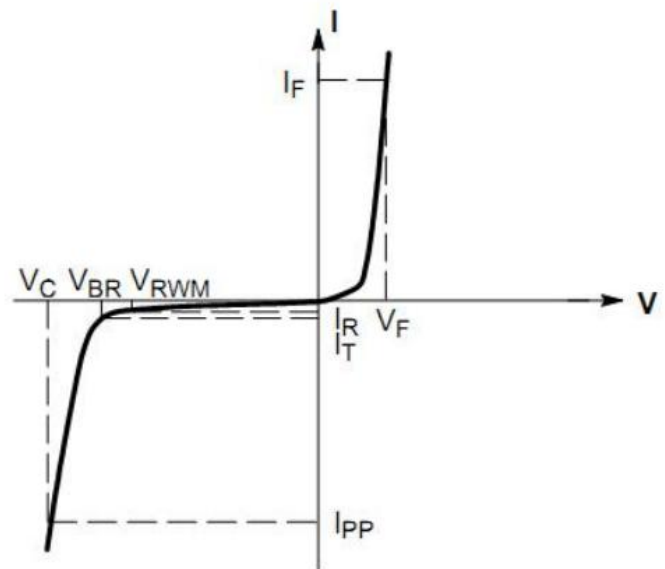
Characteristic 特性参数	Symbol 符号	Rat 额定值	Unit 单位
ESD (IEC61000-4-2 contact discharge) @25°C接触放电	V_{ESD}	± 12	KV
ESD (IEC61000-4-2 air discharge) @25°C空气放电	V_{ESD}	± 17	KV
Peak Pulse Power @25°C峰值脉冲功率	P_{PK}	60	W
Peak Pulse Current @25°C峰值脉冲电流	I_{PP}	4.5	A
Lead Temperature 管脚温度	T_L	260	°C
Lead Solder Time 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

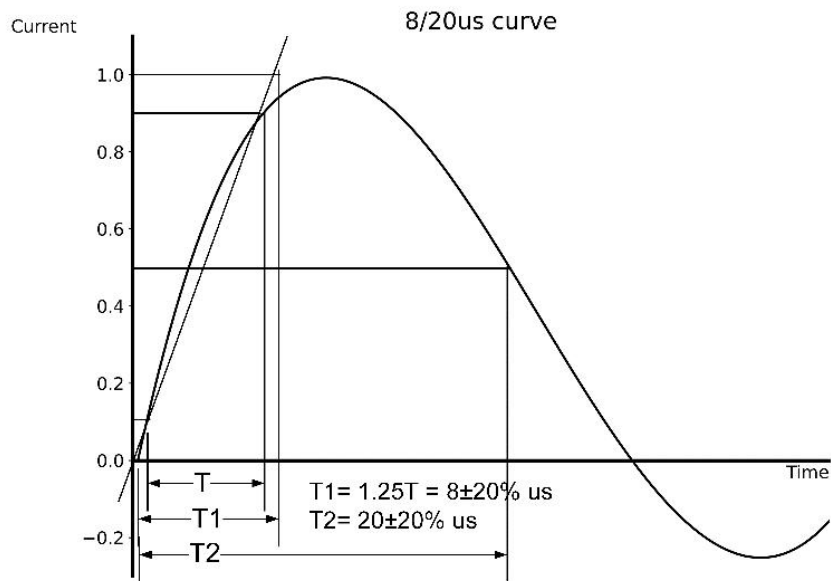
($T_A=25^\circ\text{C}$ unless otherwise noted 如无特殊说明, 温度为 25°C)

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}			3.3	V	
Reverse Breakdown Voltage 反向击穿电压	V_{BR}	4			V	$I_T=1\text{mA}$
Reverse Leakage Current 反向漏电流	I_R			1	μA	$V_{RWM}=3.3\text{V}$
Clamping Voltage 钳位电压	V_C		8.5		V	$I_{PP}=1\text{A}$, $t_p=8/20\mu\text{s}$
Clamping Voltage 钳位电压	V_C		12		V	$I_{PP}=4.5\text{A}$, $t_p=8/20\mu\text{s}$
Diode Capacitance 二极管电容	C_D	I/O to GND Between I/O	0.6 0.3		pF	$V_R=0\text{V}$, $f=1\text{MHz}$

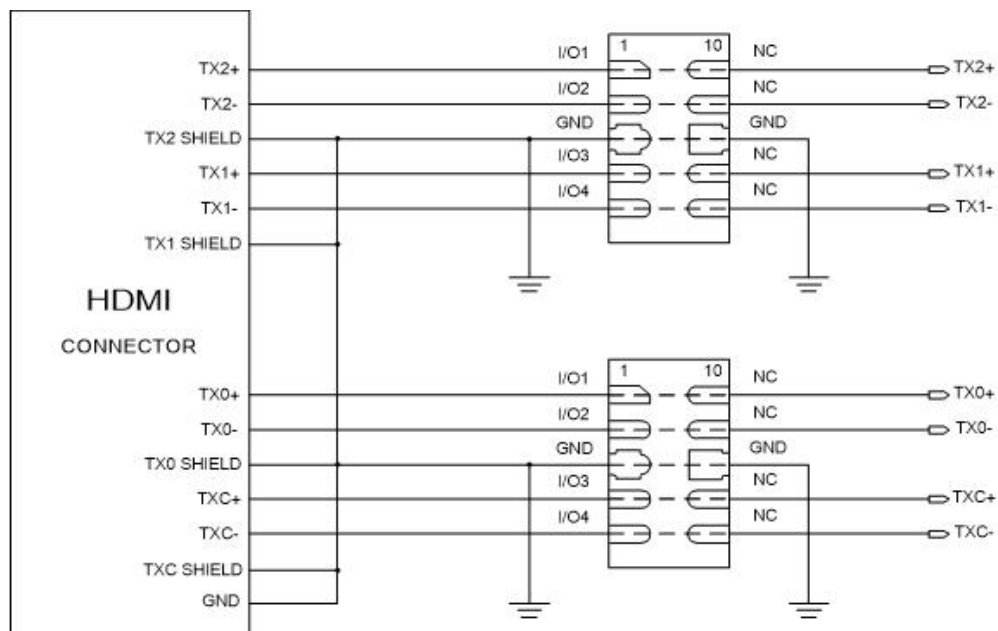
V_{RWM}	Reverse Working Voltage 反向工作电压
$V_{R(BR)}$	Reverse Breakdown Voltage 反向击穿电压@ $I_T=1\text{mA}$
I_T	Test Current 测试电流
I_R	Reverse Leakage Current 反向漏电流@ V_{RWM}
V_C	Clamping Voltage 钳位电压
I_{PP}	Reverse Peak Pulse Current 浪涌电流
C_D	Diode Capacitance 电容 $V_{I0}=0\text{V}$, $f = 1\text{MHz}$



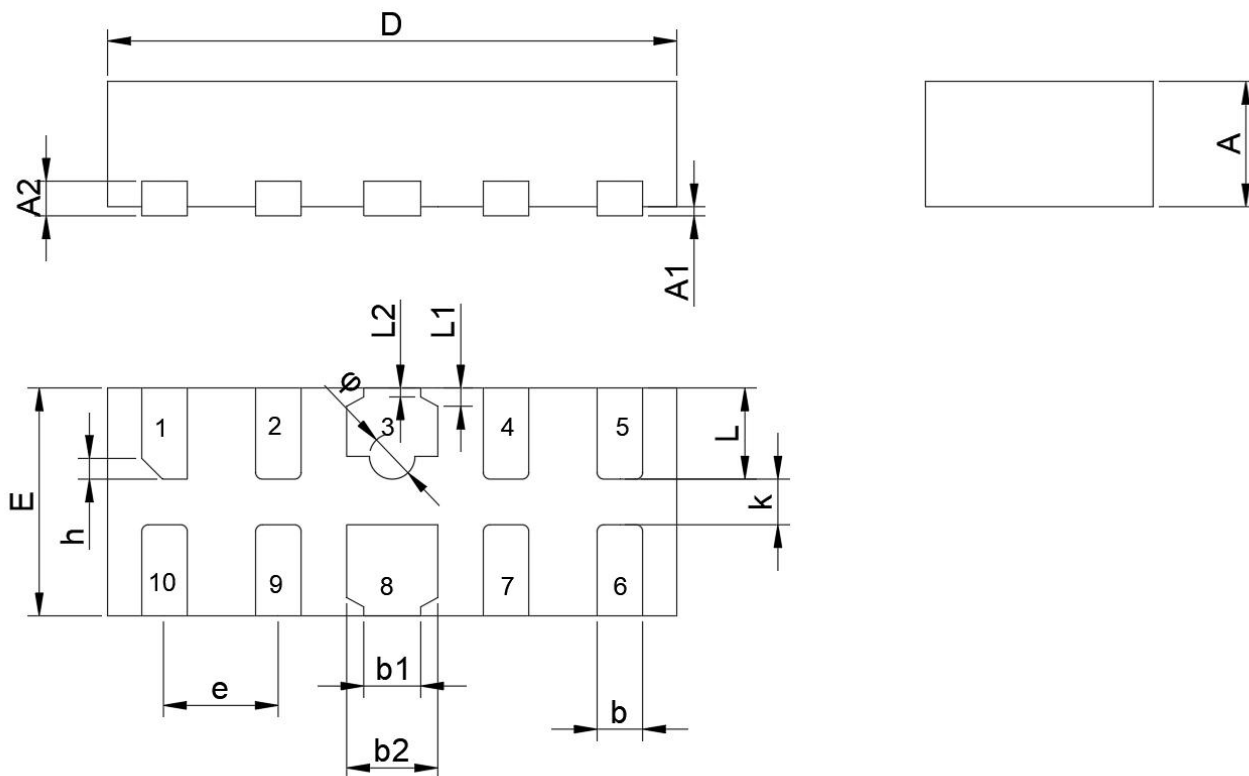
■ Typical Characteristic Curve 典型特性曲线



■ Typical Application 典型应用



Dimension 外形封装尺寸



Dimensions in Millimeter							
Symbol	Min.	Nom.	Max.	Symbol	Min.	Nom.	Max.
A	0.500	0.550	0.600	D	2.450	2.500	2.550
A1	0.00	/	0.05	E	0.950	1.00	1.050
A2	0.122	0.152	0.200	e	0.450	0.500	0.550
b	0.150	0.200	0.250	h	0.080	0.120	0.150
b1	0.200	0.250	0.300	k	0.150	0.200	0.250
b2	0.350	0.400	0.450	L	0.350	0.400	0.450
L1		0.075		L2		0.05	
ϕ	0.150	0.200	0.250				