

DFN0603-2L ESD 静电保护二极管

■Features 特点

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

- ±15kV Contact Discharge 接触放电

- ±20kV Air Discharge 空气放电

■Applications 应用

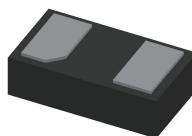
Notebooks Computer 笔记本电脑

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

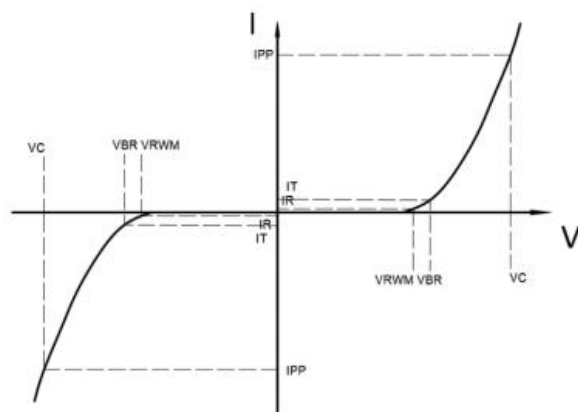
Characteristic 特性参数	Symbol 符号	Rat 额定值	Unit 单位
ESD (IEC61000-4-2 contact discharge) @25°C接触放电	V_{ESD}	±15	KV
ESD (IEC61000-4-2 air discharge) @25°C 空气放电	V_{ESD}	±20	KV
Peak Pulse Current @25°C峰值脉冲电流	I_{PP}	3	A
Peak Pulse Power @25°C峰值脉冲功率	P_{PK}	87	W
Lead Temperature 管脚温度	T_L	260	°C
Operating Temperature 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

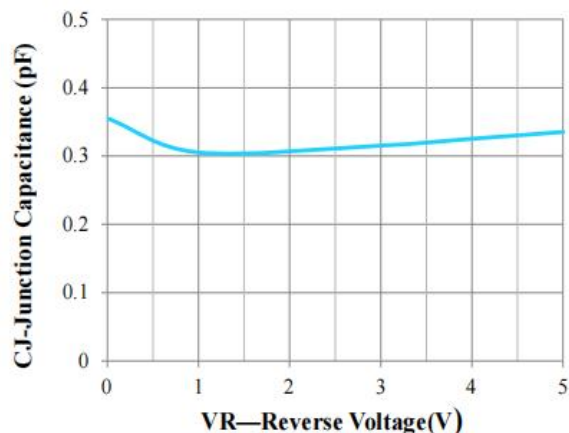
($T_A=25^{\circ}\text{C}$ unless otherwise noted 如无特殊说明, 温度为 25°C)

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		9	V	$I_{\text{T}}=1\text{mA}$
Reverse Leakage Current 反向漏电流	I_{R}			0.2	μA	$V_{\text{RWM}}=5\text{V}$
Clamping Voltage 钳位电压	V_{C}		8	10	V	$I_{\text{PP}}=1\text{A}, t_{\text{p}}=8/20\mu\text{s}$
Clamping Voltage 钳位电压	V_{C}		17	23	V	$I_{\text{PP}}=3\text{A}, t_{\text{p}}=8/20\mu\text{s}$
Diode Capacitance 二极管电容	C_{D}		0.3	0.5	pF	$V_{\text{R}}=0\text{V}, f=1\text{MHz}$

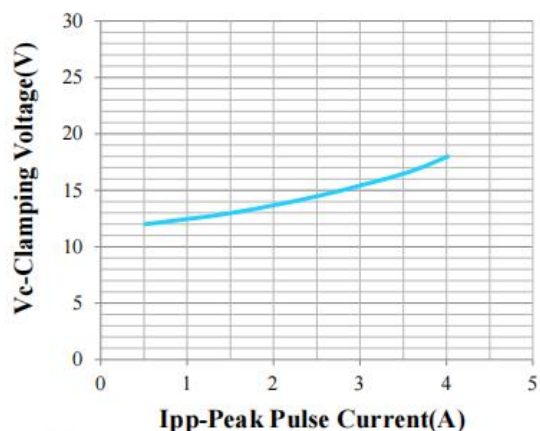
Symbol	Parameters
V_{RWM}	Peak Reverse Working Voltage
I_{R}	Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_{T}
I_{T}	Test Current
I_{PP}	Maximum Reverse Peak Pulse Current
V_{C}	Clamping Voltage @ I_{PP}
I_{F}	Forward Current
V_{F}	Forward Voltage @ I_{F}



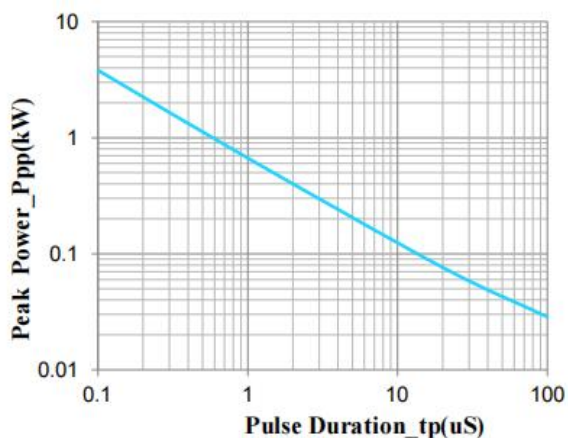
■ Typical Characteristic Curve 典型特性曲线



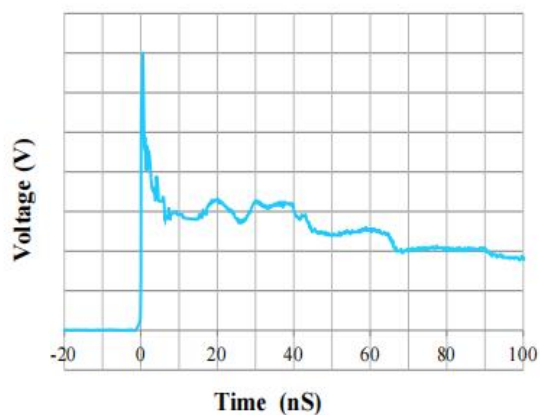
Junction Capacitance vs. Reverse Voltage



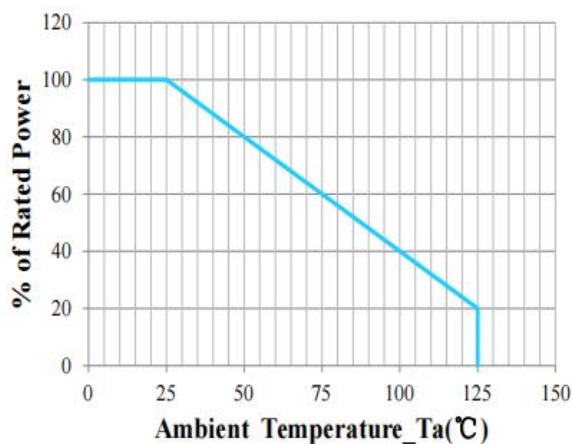
Clamping Voltage vs. Peak Pulse Current



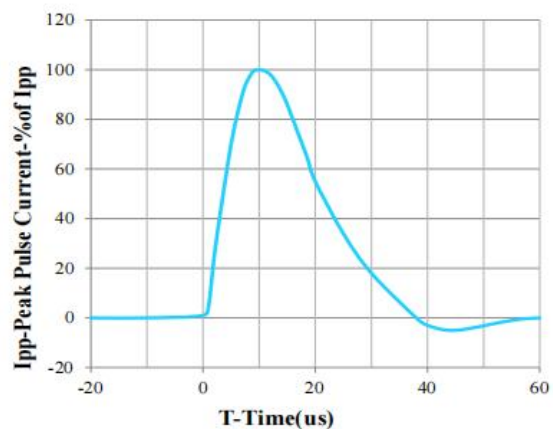
Peak Pulse Power vs. Pulse Time



IEC61000-4-2 Pulse Waveform

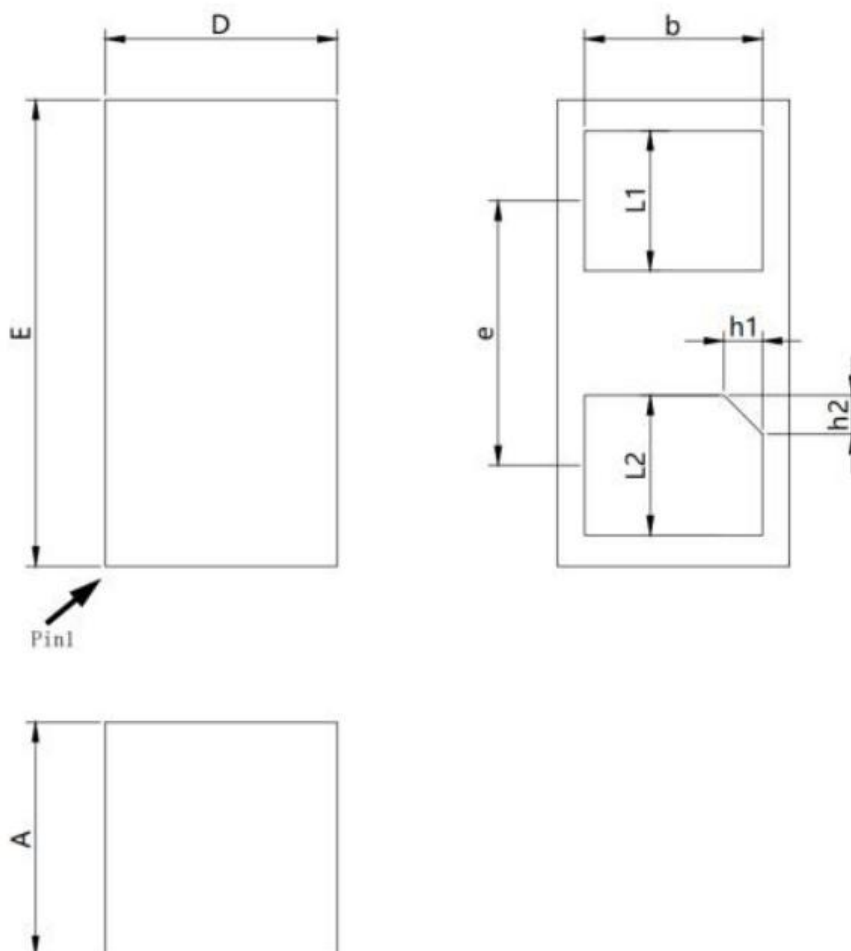


Power Derating Curve



8 X 20us Pulse Waveform

■ Dimension 外形封装尺寸



DFN0.6*0.3*0.3-2L REV.D POD			
	min(mm)	typ(mm)	max(mm)
D	0.25	0.30	0.35
E	0.55	0.60	0.65
L1	0.155	0.18	0.205
L2	0.155	0.18	0.205
b	0.205	0.23	0.255
e	0.205	0.34	0.365
h1	0.025	0.05	0.075
h2	0.025	0.05	0.075
A	-	0.30	0.35