

DFN1006-2L ESD 静电保护二极管

■Features 特点

Low Capacitance ESD Protection 低电容静电保护

- $\pm 15\text{kV}$ Contact Discharge 接触放电

- $\pm 20\text{kV}$ Air Discharge 空气放电

■Applications 应用

Cellular phones 蜂窝电话

Portable devices 便携器材

Smart home & Robot 智能家居和机器人

Digital cameras & Player 数码相机和播放器

■Marking & Internal Schematic Diagram 字标和内部结构

Mark=N



DFN1006-2L

■Absolute Maximum Ratings 最大额定值

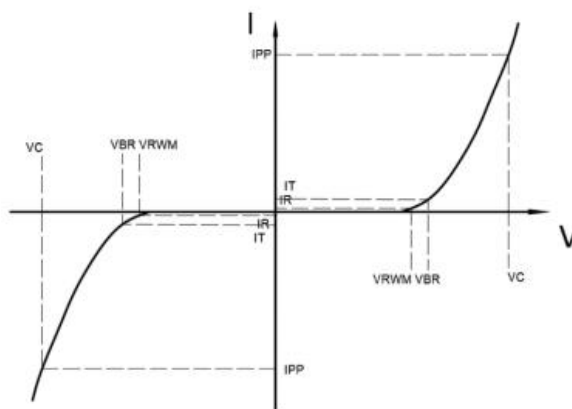
Characteristic 特性参数	Symbol 符号	Rat 额定值	Unit 单位
ESD (IEC61000-4-2 contact discharge) @25°C接触放电	V_{ESD}	± 15	KV
ESD (IEC61000-4-2 air discharge) @25°C 空气放电	V_{ESD}	± 20	KV
Peak Pulse Current @25°C峰值脉冲电流	I_{PP}	4	A
Peak Pulse Power @25°C峰值脉冲功率	P_{PK}	80	W
Lead Temperature 管脚温度	T_{L}	260	°C
Operating Temperature 工作温度	T_{op}	-40~85	°C
Junction Temperature 结温	T_{J}	-40~125	°C
Storage Temperature 储存温度	T_{stg}	-55~150	°C

■ Electrical Characteristics 电特性

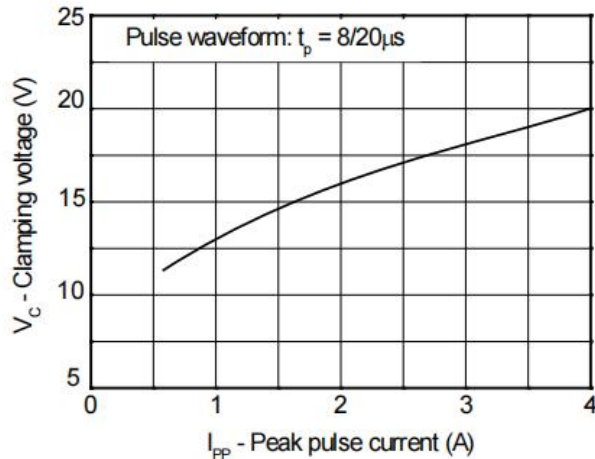
($T_A=25^{\circ}\text{C}$ unless otherwise noted 如无特殊说明, 温度为 25°C)

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	7.5	8.5	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}			13	V	$I_{\text{PP}}=1\text{A}, t_{\text{p}}=8/20\mu\text{s}$
Clamping Voltage 钳位电压	V_{C}			20	V	$I_{\text{PP}}=4\text{A}, t_{\text{p}}=8/20\mu\text{s}$
Junction Capacitance 结电容	C_{J}		0.3	0.45	pF	$V_{\text{R}}=0\text{V}, f=1\text{MHz}$
Junction Capacitance 结电容	C_{J}		0.17	0.3	pF	$V_{\text{R}}=0\text{V}, f=1\text{GHz}$

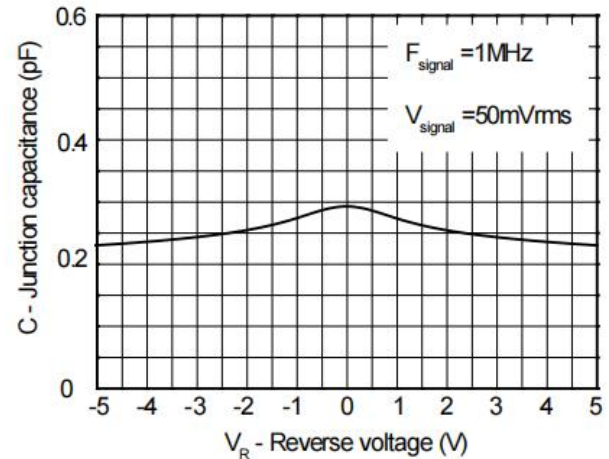
Symbol	Parameters
V_{RWM}	Peak Reverse Working Voltage
I_{R}	Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_{T}
I_{T}	Test Current
I_{PP}	Maximum Reverse Peak Pulse Current
V_{C}	Clamping Voltage @ I_{PP}
I_{F}	Forward Current
V_{F}	Forward Voltage @ I_{F}



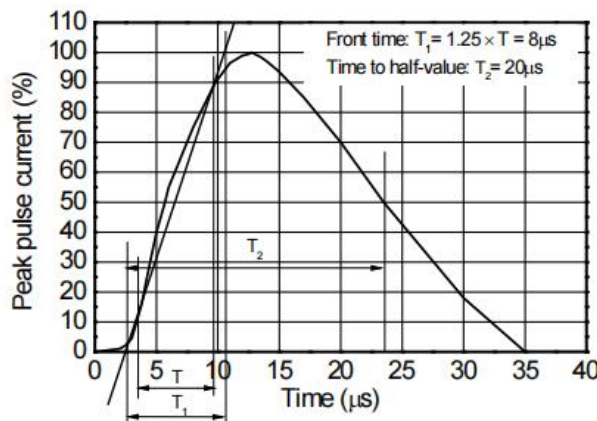
■ Typical Characteristic Curve 典型特性曲线



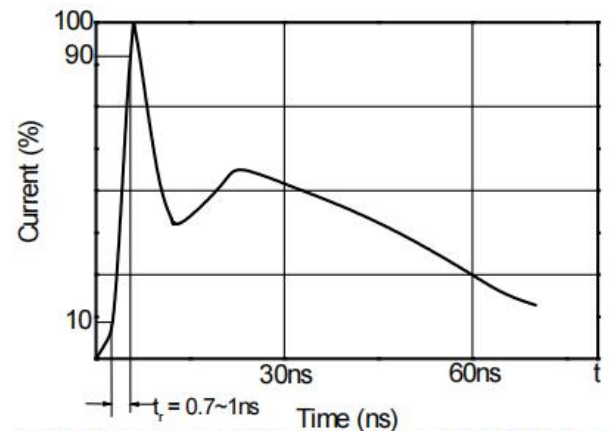
Clamping voltage vs. Peak pulse current



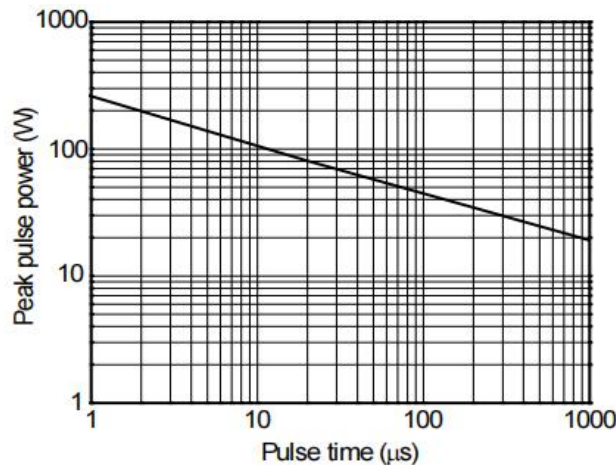
Capacitance vs. Reverse voltage



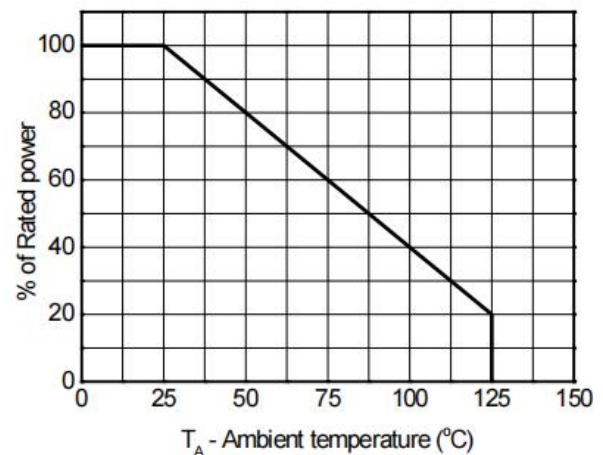
8/20 μs waveform per IEC61000-4-5



Contact discharge current waveform per IEC61000-4-2



Non-repetitive peak pulse power vs. Pulse time



Power derating vs. Ambient temperature

■ **Dimension** 外形封装尺寸

