

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

- $\pm 30\text{kV}$ Contact Discharge 接触放电

- $\pm 30\text{kV}$ Air Discharge 空气放电

■Applications 应用

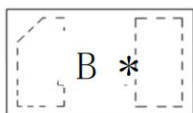
USB Ports 接口电路

Audio and Video Equipment 音视频设备

Notebooks & Handhelds 笔记本或手持机

Cellular handsets and accessories 蜂窝手机及附件

■Internal Schematic Diagram 内部结构



DFN1006-2L

■Absolute Maximum Ratings 最大额定值

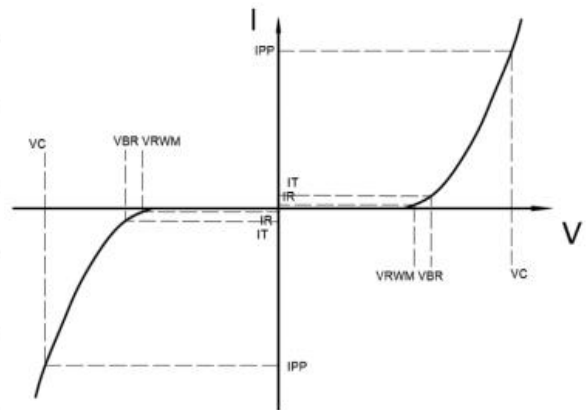
Characteristic 特性参数	Symbol 符号	Rat 额定值	Unit 单位
ESD (IEC61000-4-2 contact discharge) @25°C接触放电	V_{ESD}	± 30	KV
ESD (IEC61000-4-2 air discharge) @25°C 空气放电	V_{ESD}	± 30	KV
Peak Pulse Current @25°C峰值脉冲电流	I_{PP}	8	A
Peak Pulse Power @25°C峰值脉冲功率	P_{PK}	100	W
Lead Temperature 管脚温度	T_{L}	260	°C
Operating Temperature 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

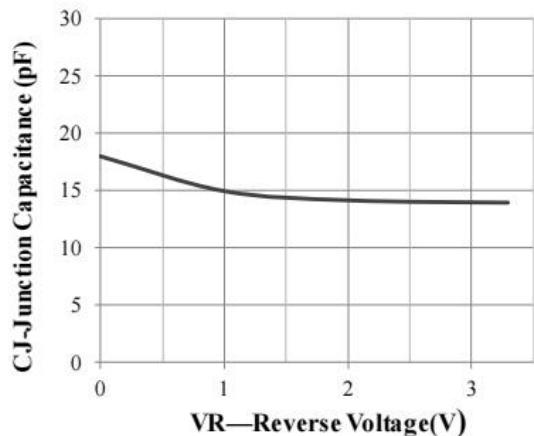
($T_A=25^{\circ}\text{C}$ unless otherwise noted 如无特殊说明, 温度为 25°C)

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}			3.3	V	
Reverse Breakdown Voltage 反向击穿电压	V_{BR}	3.6		6.5	V	$I_{\text{T}}=1\text{mA}$
Reverse Leakage Current 反向漏电流	I_{R}			0.5	μA	$V_{\text{RWM}}=3.3\text{V}$
Clamping Voltage 钳位电压	V_{C}			7.5	V	$I_{\text{PP}}=1\text{A}, t_{\text{p}}=8/20\mu\text{s}$
Clamping Voltage 钳位电压	V_{C}		7.2	12.5	V	$I_{\text{PP}}=8\text{A}, t_{\text{p}}=8/20\mu\text{s}$
Diode Capacitance 二极管电容	C_{D}		15	25	pF	$V_{\text{R}}=0\text{V}, f=1\text{MHz}$

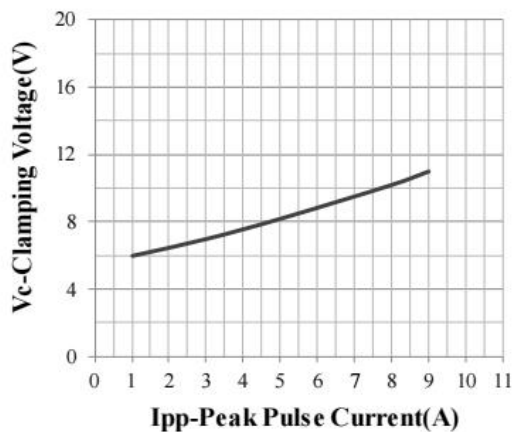
Symbol	Parameters
V_{RWM}	Peak Reverse Working Voltage
I_{R}	Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_{T}
I_{T}	Test Current
I_{PP}	Maximum Reverse Peak Pulse Current
V_{C}	Clamping Voltage @ I_{PP}
I_{F}	Forward Current
V_{F}	Forward Voltage @ I_{F}



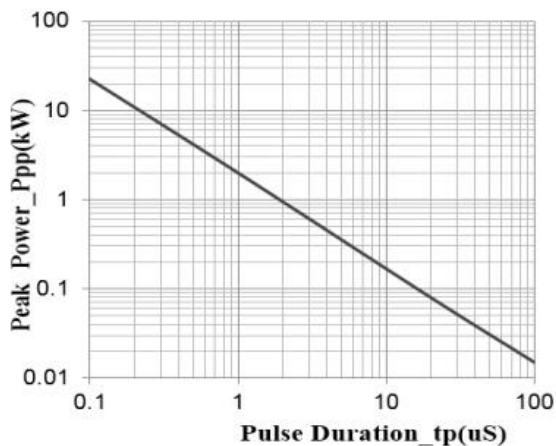
■ Typical Characteristic Curve 典型特性曲线



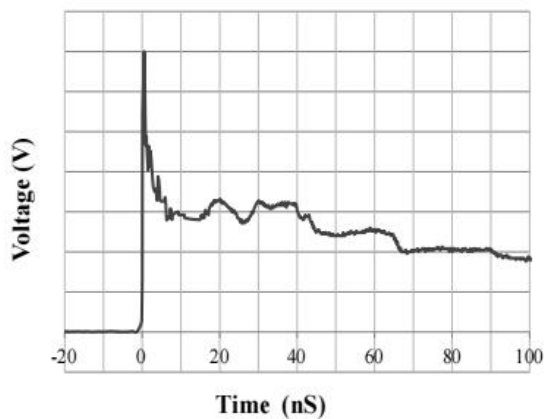
Junction Capacitance vs. Reverse Voltage



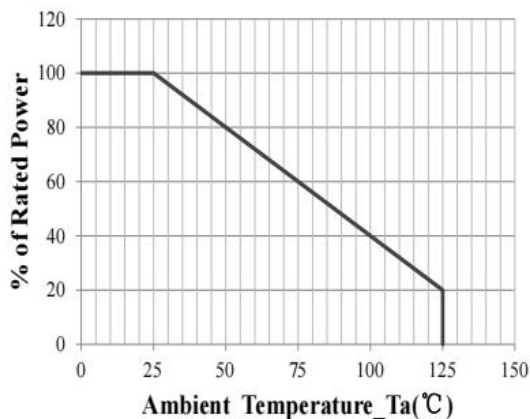
Clamping Voltage vs. Peak Pulse Current



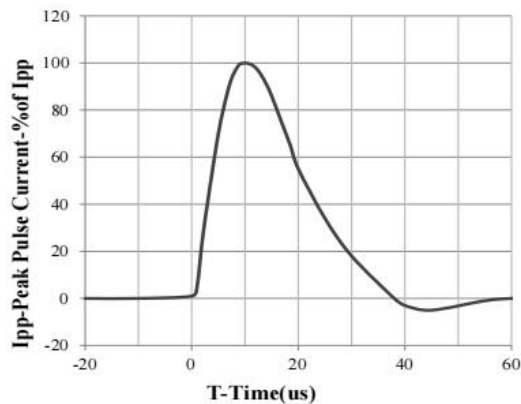
Peak Pulse Power vs. Pulse Time



IEC61000-4-2 Pulse Waveform

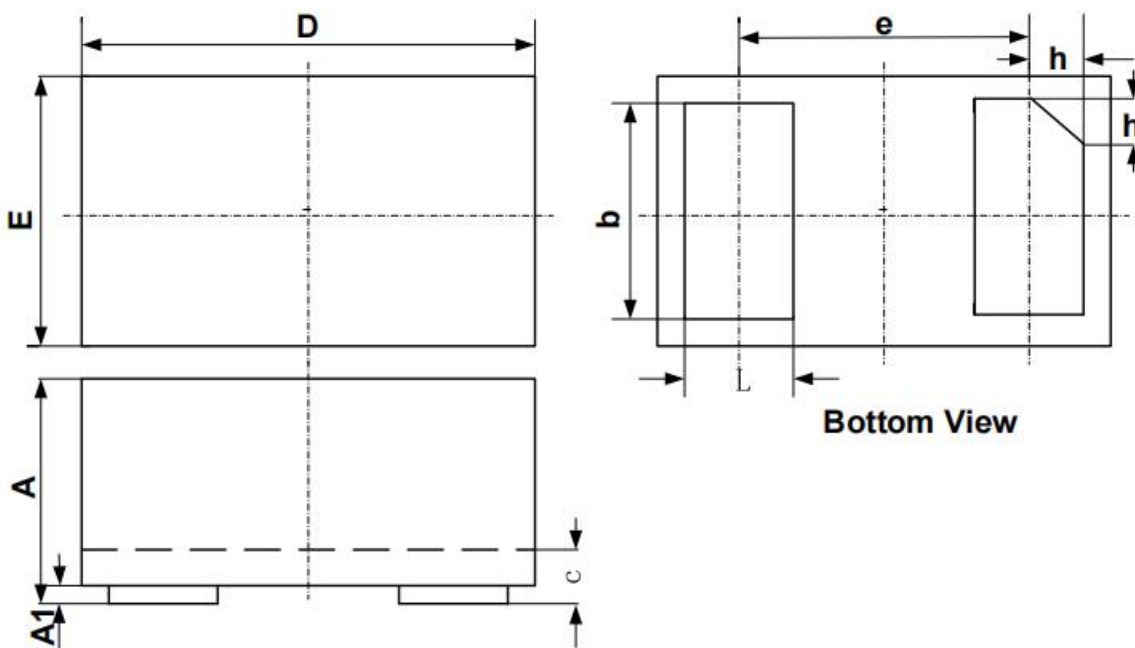


Power Derating Curve



8 X 20us Pulse Waveform

■ Dimension 外形封装尺寸



SYM	DIMENSIONS					
	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.45	0.50	0.55	0.018	0.020	0.022
A1	0.00	0.02	0.05	0.000	0.001	0.002
b	0.45	0.50	0.55	0.018	0.020	0.022
c	0.12	0.15	0.18	0.005	0.006	0.007
D	0.95	1.00	1.05	0.037	0.039	0.041
e	0.65 BSC			0.026 BSC		
E	0.55	0.60	0.65	0.022	0.024	0.026
L	0.20	0.25	0.30	0.008	0.010	0.012
h	0.07	0.12	0.17	0.003	0.005	0.007