

DFN1006-2L ESD 静电保护二极管

■Features 特点

Low Capacitance ESD Protection 低电容静电保护

- $\pm 20\text{kV}$ Contact Discharge 接触放电

- $\pm 25\text{kV}$ Air Discharge 空气放电

■Applications 应用

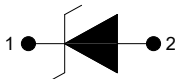
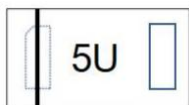
MP3 Players 播放器

Digital Cameras 数码相机

Notebooks & Handhelds 笔记本或手持机

Cellular handsets and accessories 蜂窝手机及配件

■Internal Schematic Diagram 内部结构



DFN1006-2L

■Absolute Maximum Ratings 最大额定值

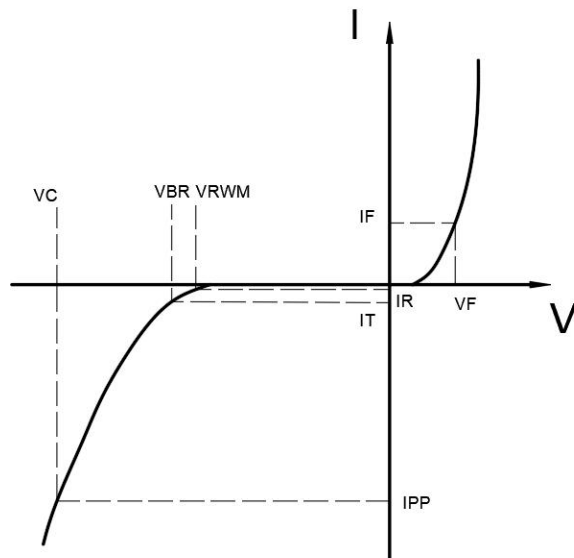
Characteristic 特性参数	Symbol 符号	Rat 额定值	Unit 单位
ESD (IEC61000-4-2 contact discharge) @25°C接触放电	V_{ESD}	± 20	KV
ESD (IEC61000-4-2 air discharge) @25°C 空气放电	V_{ESD}	± 25	KV
Peak Pulse Current @25°C峰值脉冲电流	I_{PP}	5	A
Peak Pulse Power @25°C峰值脉冲功率	P_{PK}	55	W
Lead Temperature 管脚温度	T_L	260	°C
Operating Temperature 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}	5.6		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}			10	V	$I_{\text{PP}}=1\text{A}, t_{\text{p}}=8/20\mu\text{s}$
Clamping Voltage 钳位电压	V_{C}		14	16	V	$I_{\text{PP}}=5\text{A}, t_{\text{p}}=8/20\mu\text{s}$
Diode Capacitance 二极管电容	C_{D}			0.8	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

FIG1: Power rating derating curve

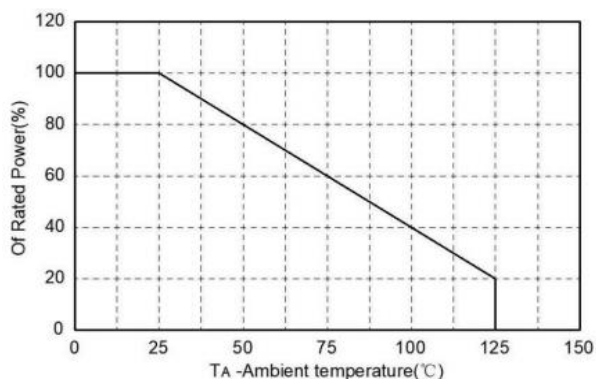


FIG2: pulse Waveform

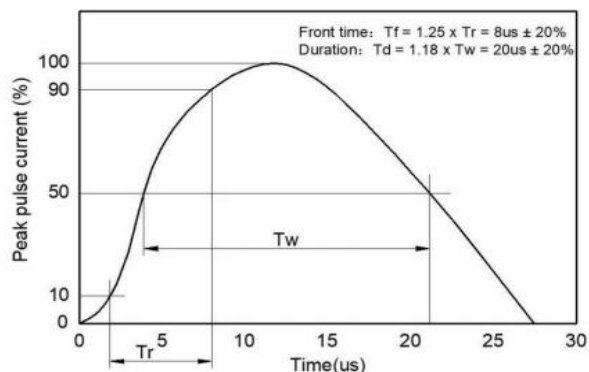


FIG3: Capacitance between terminals characteristics

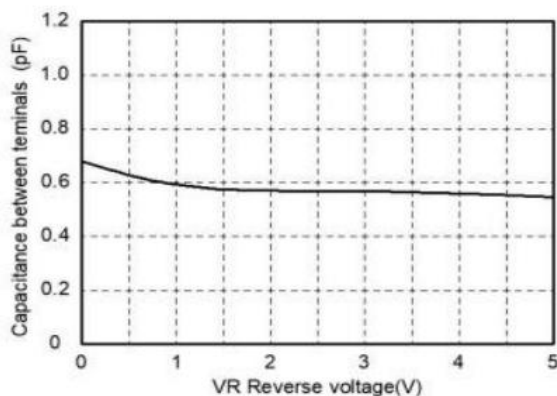
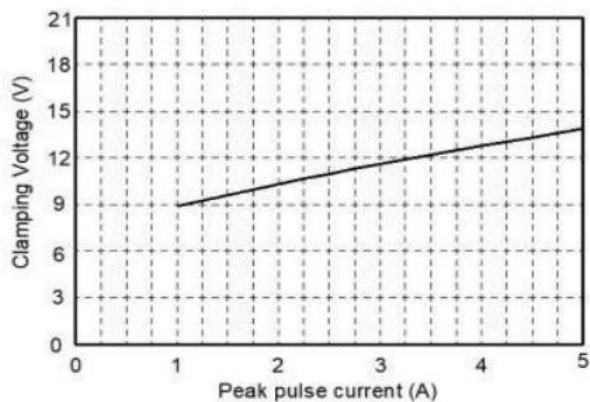
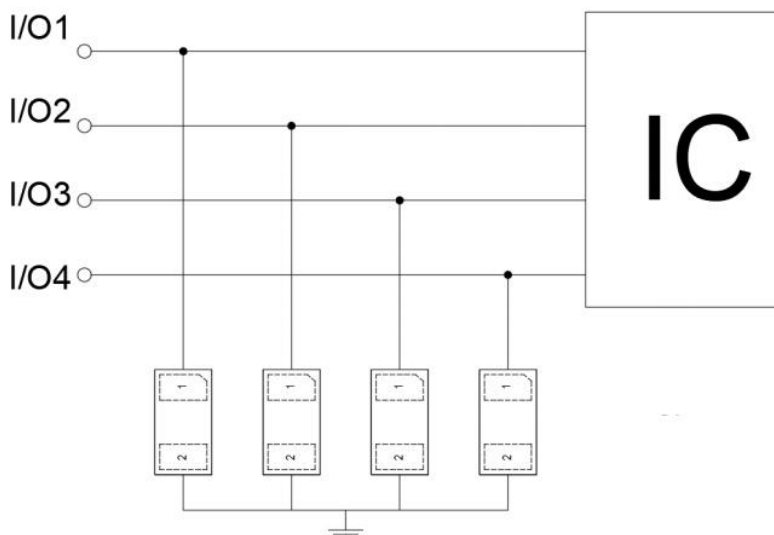


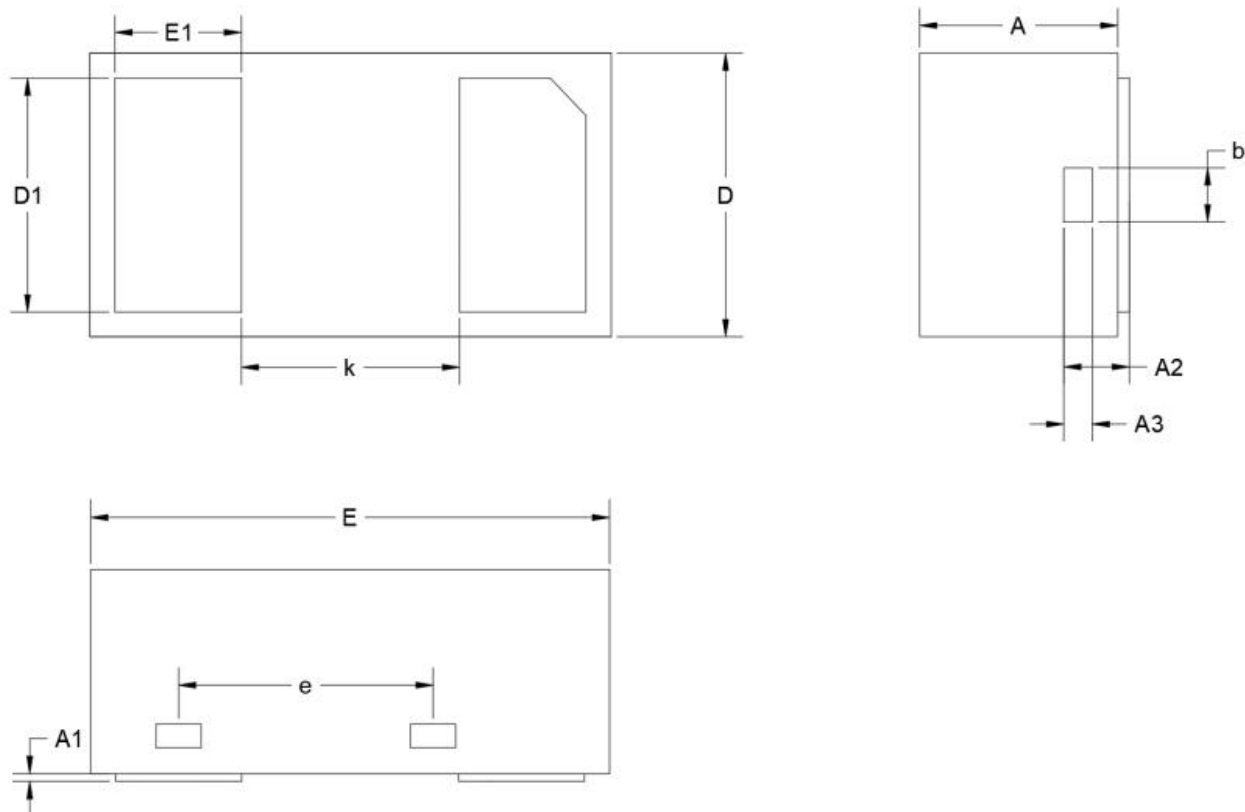
FIG4: Clamping Voltage vs. Peak Pulse Current



■ Typical Applications 典型应用



■ Dimension 外形封装尺寸



Units in millimeters

Symbol	Min.	Nom.	Max.
A	0.350	0.450	0.550
A1	0.000	0.020	0.050
A2	0.077	0.127	0.207
A3	0.013	0.063	0.113
b	0.070	0.120	0.200
D	0.500	0.600	0.700
D1	0.400	0.500	0.600
D2	0.200	0.300	0.400
E	0.900	1.000	1.100
E1	0.150	0.250	0.350
e	0.360	0.410	0.460
k	0.300	0.400	0.500