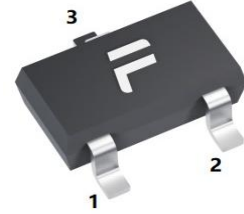


## SOT-23 ESD 静电保护二极管

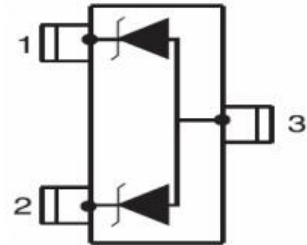
### ■ Features 特点

Two Un-directional Lines 两个单向  
Or Bidirectional 或双向  
ESD Protection 静电保护



### ■ Applications 应用

Cellular Phone 蜂窝手机  
Communication System 通信系统  
Portable electronics 便携电子产品  
Set-top box and Computer 机顶盒和计算机  
Industrial Controls & Printers 工业控制器及打印机



### ■ Internal Schematic Diagram 内部结构

### ■ Device Marking 产品打标 M18

### ■ Absolute Maximum Ratings 最大额定值

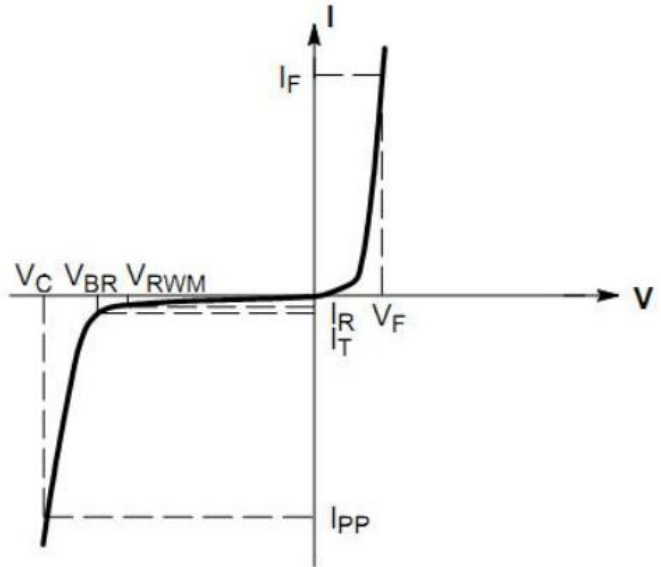
Characteristic 特性参数	Symbol 符号	Rat 额定值	Unit 单位
ESD (IEC61000-4-2 contact discharge) @25°C接触放电	$V_{ESD}$	$\pm 30$	KV
ESD (IEC61000-4-2 air discharge) @25°C空气放电	$V_{ESD}$	$\pm 30$	KV
Peak Pulse Power @25°C峰值脉冲功率	$P_{PK}$	320	W
Peak Pulse Current @25°C峰值脉冲电流	$I_{PP}$	10	A
Lead Temperature 管脚温度	$T_L$	260	°C
Lead Solder Time 管脚焊接时间	$T_L$	10	S
Operating Temperature 工作温度	$T_{op}$	-40~125	°C
Junction Temperature 结温	$T_J$	150	°C
Storage Temperature 储存温度	$T_{stg}$	-55~150	°C

■ **Electrical Characteristics 电特性**

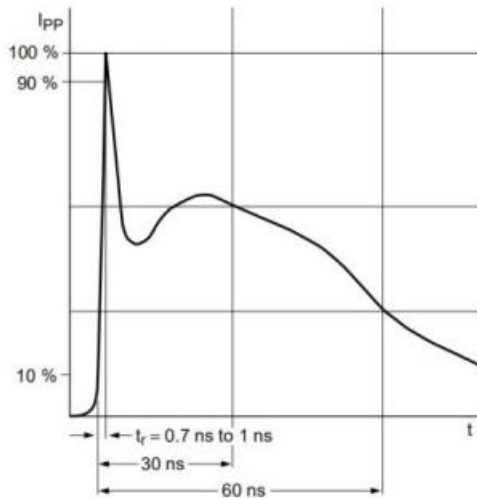
( $T_A=25^{\circ}\text{C}$  unless otherwise noted 如无特殊说明, 温度为  $25^{\circ}\text{C}$ )

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	$V_{RWM}$			18	V	
Reverse Breakdown Voltage 反向击穿电压	$V_{BR}$	20		23	V	$I_T=1\text{mA}$
Reverse Leakage Current 反向漏电流	$I_R$			0.1	$\mu\text{A}$	$V_{RWM}=18\text{V}$
Forward Voltage 正向压降	$V_F$	0.6		1	V	$I_F=10\text{mA}$
Clamping Voltage 钳位电压	$V_C$			23	V	$I_{PP}=2\text{A}$ , $t_p=8/20\mu\text{s}$
Clamping Voltage 钳位电压	$V_C$		30	32	V	$I_{PP}=10\text{A}$ , $t_p=8/20\mu\text{s}$
Junction Capacitance 结电容	$C_J$	Pin 1 or 2 to 3 Pin 1 to 2/2 to 1	52 26	65 33	pF	$V_R=0\text{V}$ , $f=1\text{MHz}$

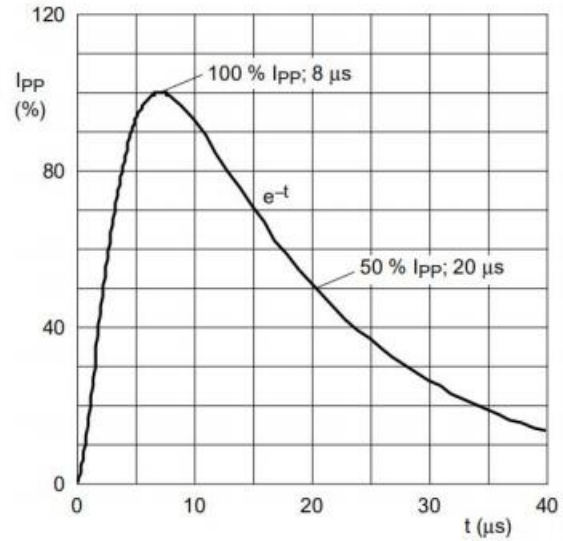
$V_{RWM}$	Reverse Working Voltage 反向工作电压
$V_{R(BR)}$	Reverse Breakdown Voltage 反向击穿电压@ $I_T=1\text{mA}$
$I_T$	Test Current 测试电流
$I_R$	Reverse Leakage Current 反向漏电流@ $V_{RWM}$
$V_F$	Forward Voltage 正向压降@ $I_F$
$V_C$	Clamping Voltage 钳位电压
$I_{PP}$	Reverse Peak Pulse Current 浪涌电流
$C_J$	Junction Capacitance 结电容



■ Typical Characteristic Curve 典型特性曲线

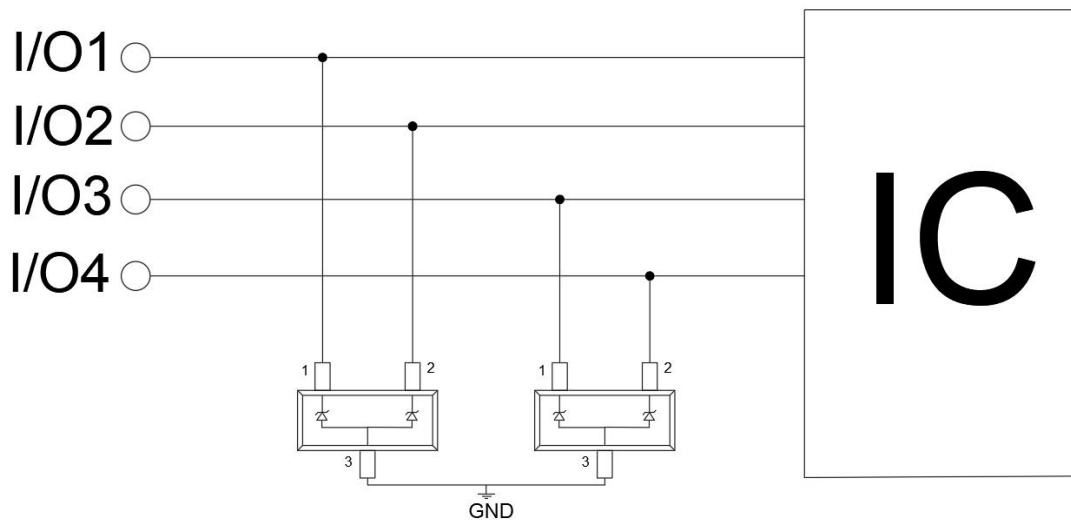


IEC61000-4-2 Waveform

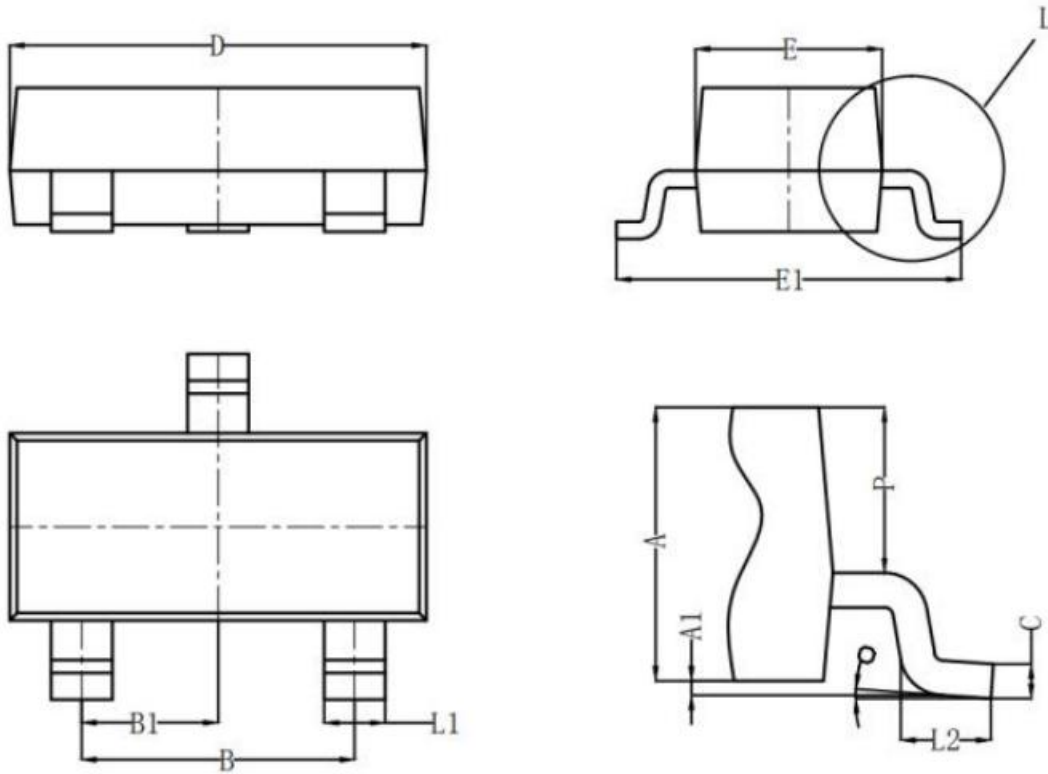


IEC 61000-4-5 Waveform ( 8/20μs pulse)

■ Typical Application 典型应用



■ Dimension 外形封装尺寸



Symbol	Dimensions (mm)		
	Min	Typ	Max
A	0.900	1.000	1.1100
A1	0.000	0.050	0.100
L1	0.350	0.400	0.500
C	0.100	0.110	0.120
D	2.800	2.900	3.000
E	1.250	1.300	1.350
E1	2.250	2.400	2.550
B	1.800	1.900	2.000
B1	0.950 Typ		
L2	0.200	0.350	0.450
P	0.550	0.575	0.600