

## SOT-553 ESD 静电保护二极管

### ■ Features 特点

Four Un-directional Lines 四通道单向  
ESD Protection 静电保护

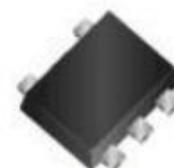
### ■ Applications 应用

Cellular handsets and accessories 蜂窝手机及配件  
Personal Digital Assistants 个人数码助手  
Notebooks & Handhelds 笔记本与手持机  
Portable Instrumentation 桌面仪器

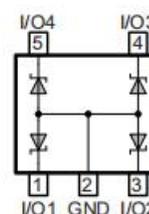
### ■ Internal Schematic Diagram 内部结构

### ■ Device Marking 产品打标

E5F



SOT-553



Pin configuration (Top view)

### ■ Absolute Maximum Ratings 最大额定值

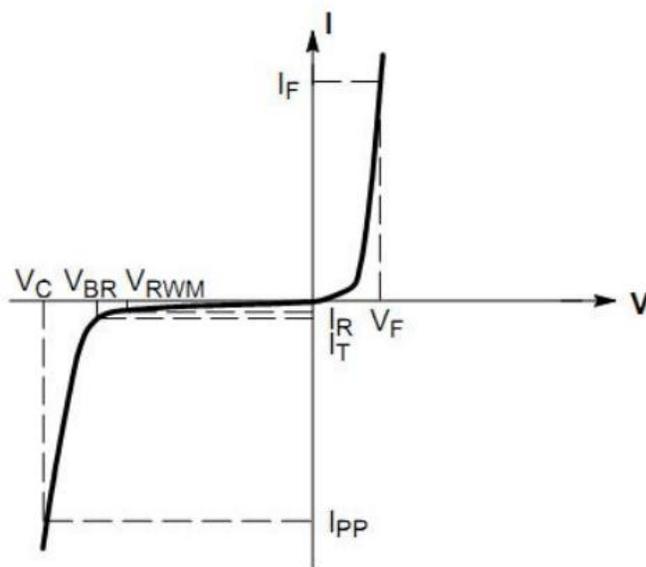
Characteristic 特性参数	Symbol 符号	Rat 额定值	Unit 单位
ESD (IEC61000-4-2 contact discharge) @25°C接触放电	$V_{ESD}$	$\pm 8$	KV
ESD (IEC61000-4-2 air discharge) @25°C空气放电	$V_{ESD}$	$\pm 15$	KV
Peak Pulse Power @25°C峰值脉冲功率	$P_{PK}$	26	W
Peak Pulse Current @25°C峰值脉冲电流	$I_{PP}$	2	A
Lead Temperature 管脚温度	$T_L$	260	°C
Lead Solder Time 管脚焊接时间	$T_L$	10	S
Operating Temperature 工作温度	$T_{op}$	-40~85	°C
Junction Temperature 结温	$T_J$	-55~125	°C
Storage Temperature 储存温度	$T_{stg}$	-55~150	°C

■ **Electrical Characteristics 电特性**

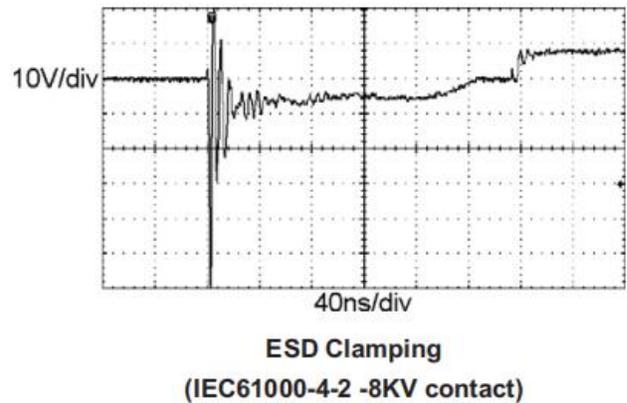
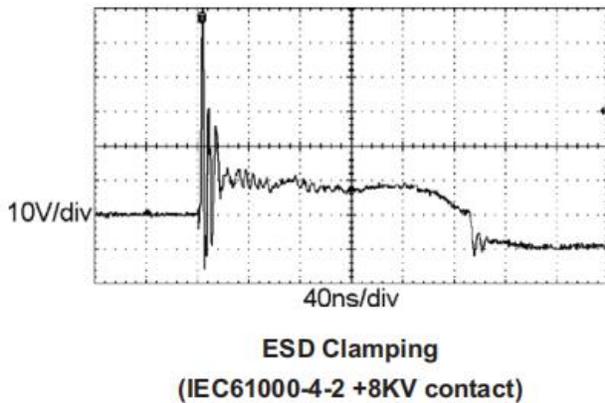
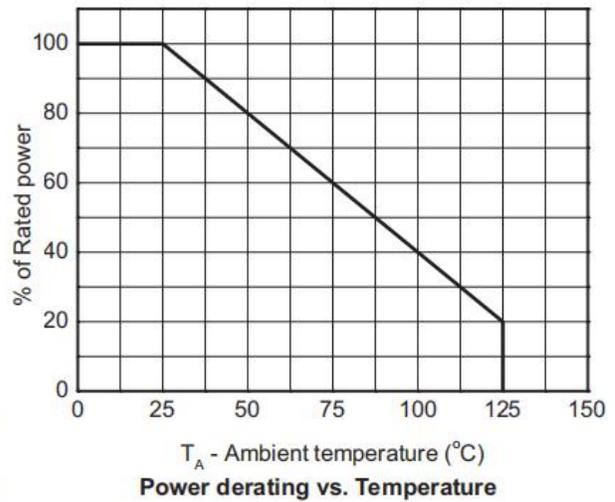
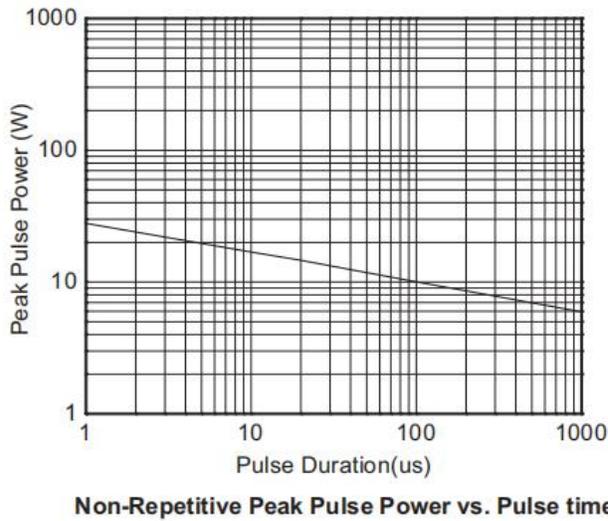
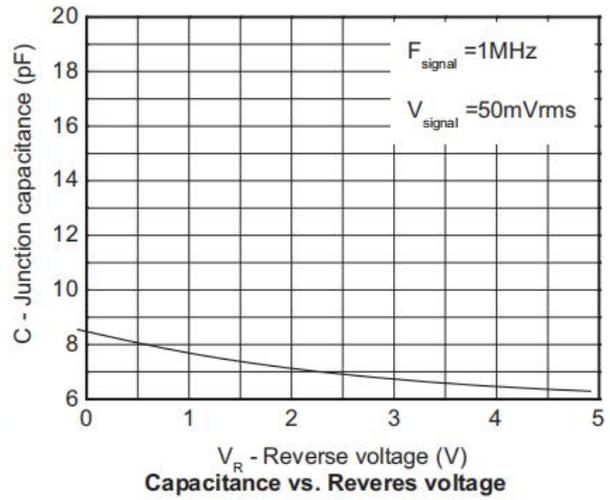
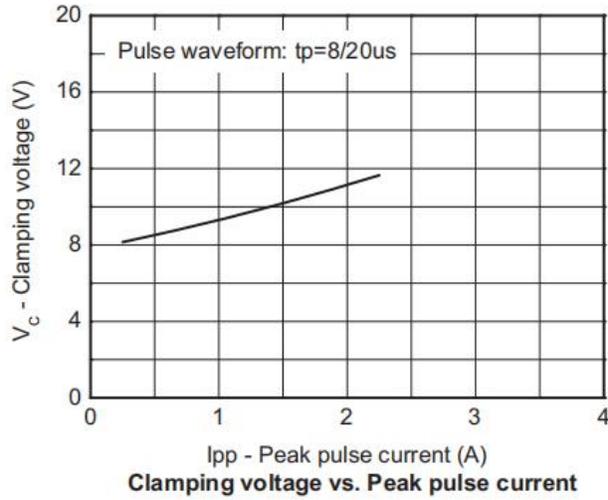
( $T_A=25^{\circ}\text{C}$  unless otherwise noted 如无特殊说明, 温度为  $25^{\circ}\text{C}$ )

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	$V_{RWM}$			5	V	
Reverse Breakdown Voltage 反向击穿电压	$V_{BR}$	6	6.8	8	V	$I_T=1\text{mA}$
Reverse Leakage Current 反向漏电流	$I_R$			1	$\mu\text{A}$	$V_{RWM}=5\text{V}$
Clamping Voltage 钳位电压	$V_C$		9		V	$I_{PP}=1\text{A}$ , $t_p=8/20\mu\text{s}$
Clamping Voltage 钳位电压	$V_C$		12		V	$I_{PP}=2\text{A}$ , $t_p=8/20\mu\text{s}$
Diode Capacitance 二极管电容	$C_D$		7	10	pF	$V_R=0\text{V}$ , $f=1\text{MHz}$

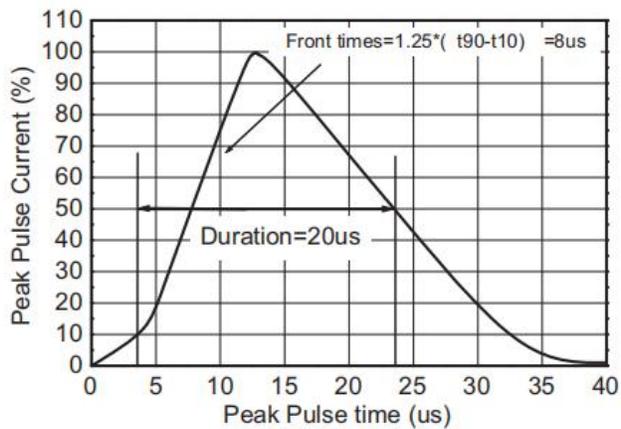
$V_{RWM}$	Reverse Working Voltage 反向工作电压
$V_{R(BR)}$	Reverse Breakdown Voltage 反向击穿电压@ $I_T=1\text{mA}$
$I_T$	Test Current 测试电流
$I_R$	Reverse Leakage Current 反向漏电流@ $V_{RWM}$
$V_C$	Clamping Voltage 钳位电压
$I_{PP}$	Reverse Peak Pulse Current 浪涌电流
$C_J$	Junction Capacitance 结电容 $V_{I0}=0\text{V}$ , $V_{P-P}=30\text{mV}$ , $f=1\text{MHz}$



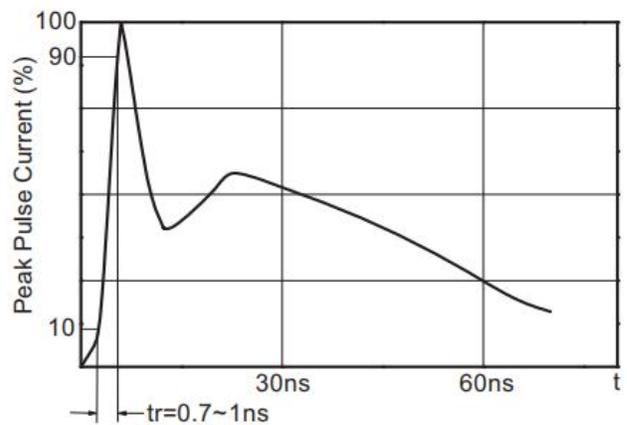
■ Typical Characteristic Curve 典型特性曲线



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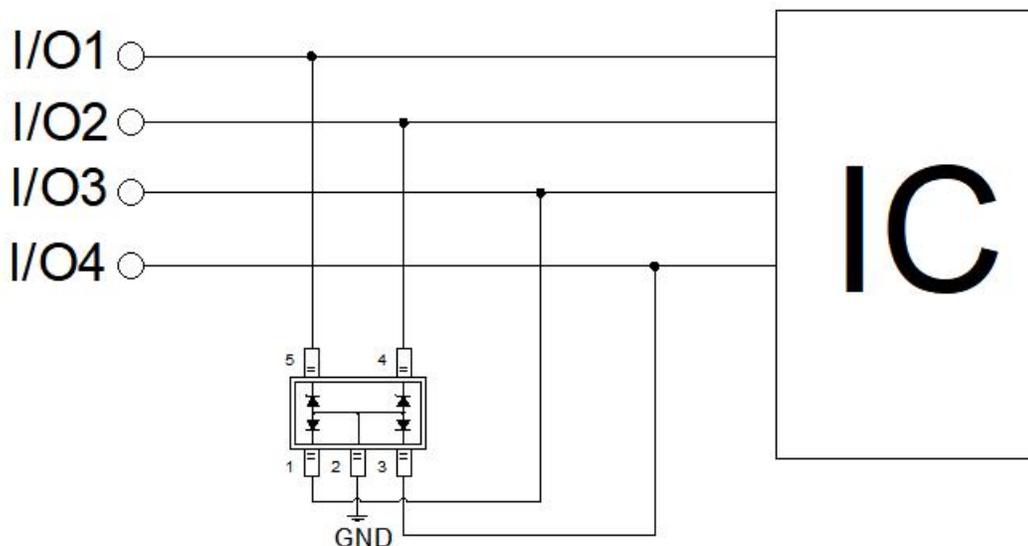


8/20us waveform

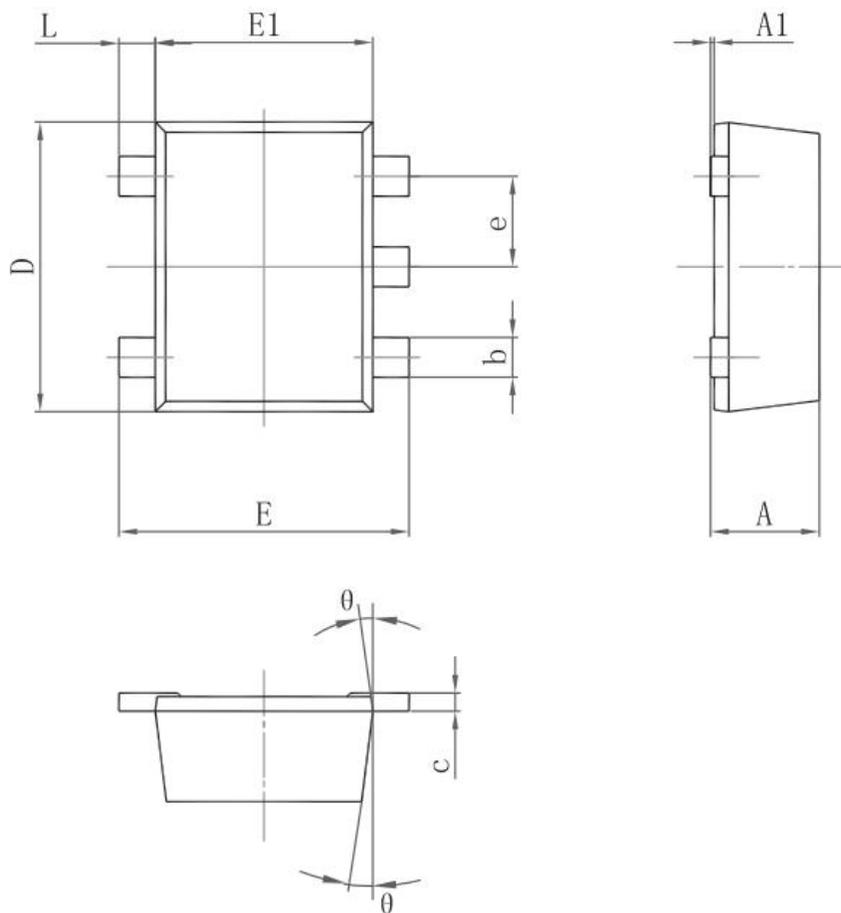


IEC61000-4-2 waveform

■ Typical Application 典型应用



■ Dimension 外形封装尺寸



Symbol	Dimensions in millimeter		
	Min.	Typ.	Max.
A	0.525	0.563	0.600
A1	0.000	0.025	0.050
e	0.450	0.500	0.550
c	0.090	0.125	0.160
D	1.500	1.600	1.700
b	0.170	0.220	0.270
E1	1.100	1.200	1.300
E	1.500	1.600	1.700
L	0.100	0.200	0.300
θ	7° REF		