

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

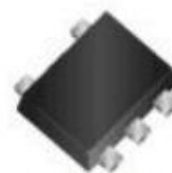
■ Applications 应用

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

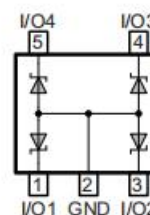
■ Internal Schematic Diagram 内部结构

■ Device Marking 产品打标

E5F



SOT-553



Pin configuration (Top view)

■ Absolute Maximum Ratings 最大额定值

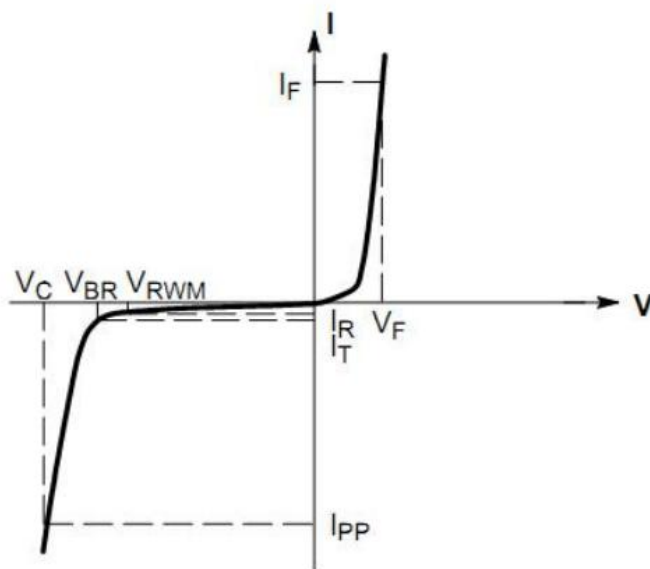
Characteristic 特性参数	Symbol 符号	Rat 额定值	Unit 单位
ESD (IEC61000-4-2 contact discharge) @25°C接触放电	V_{ESD}	± 8	KV
ESD (IEC61000-4-2 air discharge) @25°C空气放电	V_{ESD}	± 15	KV
Peak Pulse Power @25°C峰值脉冲功率	P_{PK}	26	W
Peak Pulse Current @25°C峰值脉冲电流	I_{PP}	2	A
Lead Temperature 管脚温度	T_L	260	°C
Lead Solder Time 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

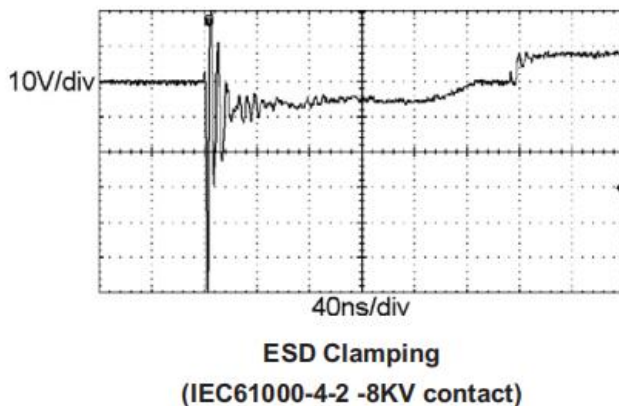
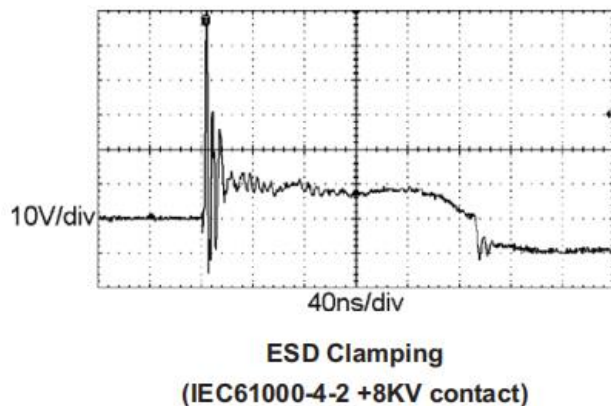
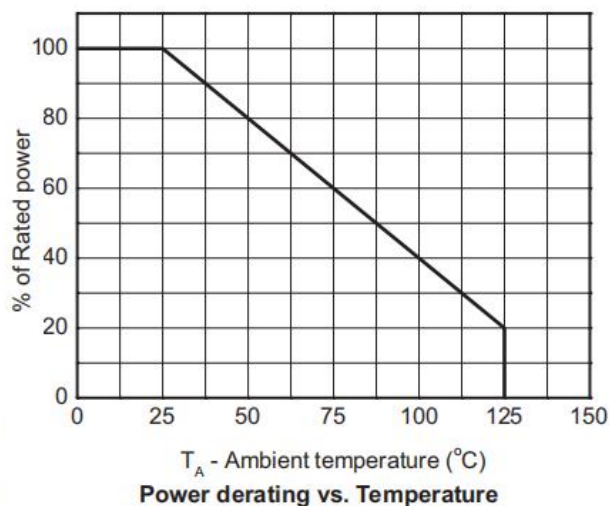
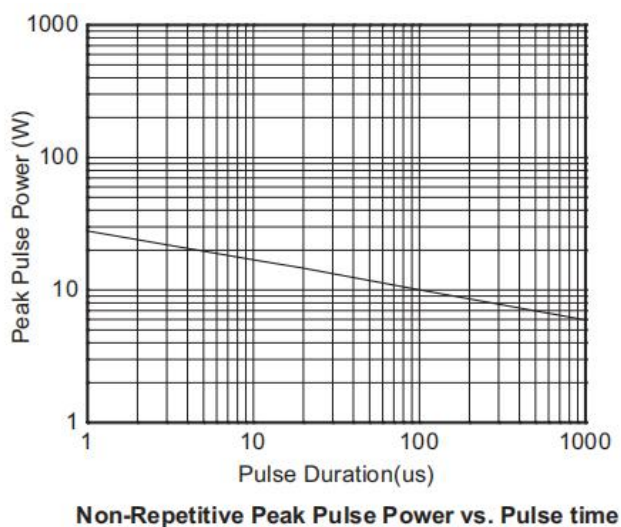
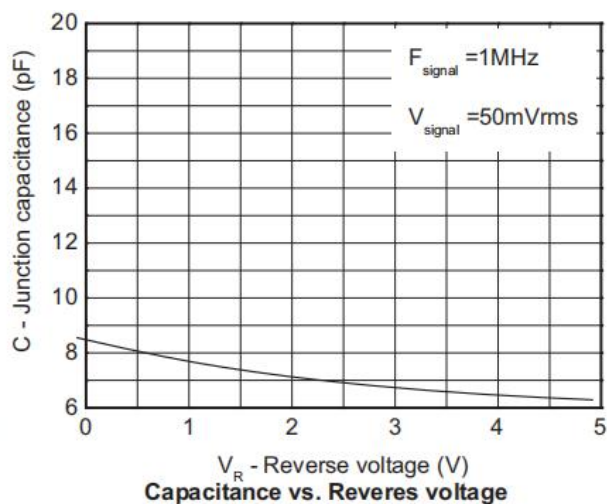
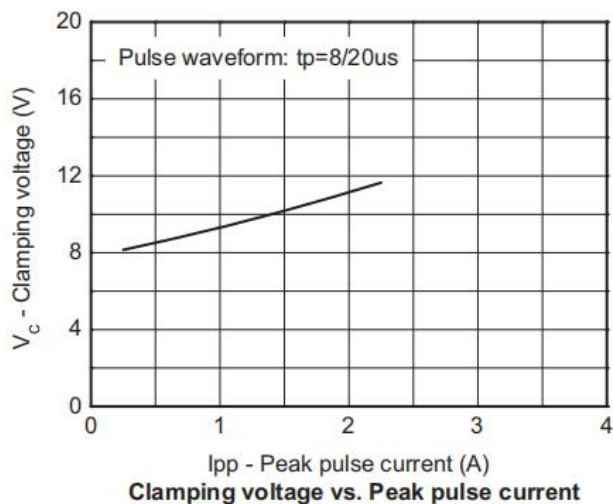
($T_A=25^{\circ}\text{C}$ unless otherwise noted 如无特殊说明, 温度为 25°C)

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	$I_{\text{T}}=1\text{mA}$
Reverse Leakage Current 反向漏电流	I_{R}			1	μA	$V_{\text{RWM}}=5\text{V}$
Clamping Voltage 钳位电压	V_{C}		9		V	$I_{\text{PP}}=1\text{A}$, $t_{\text{p}}=8/20\mu\text{s}$
Clamping Voltage 钳位电压	V_{C}		12		V	$I_{\text{PP}}=2\text{A}$, $t_{\text{p}}=8/20\mu\text{s}$
Diode Capacitance 二极管电容	C_{D}		7	10	pF	$V_{\text{R}}=0\text{V}$, $f=1\text{MHz}$

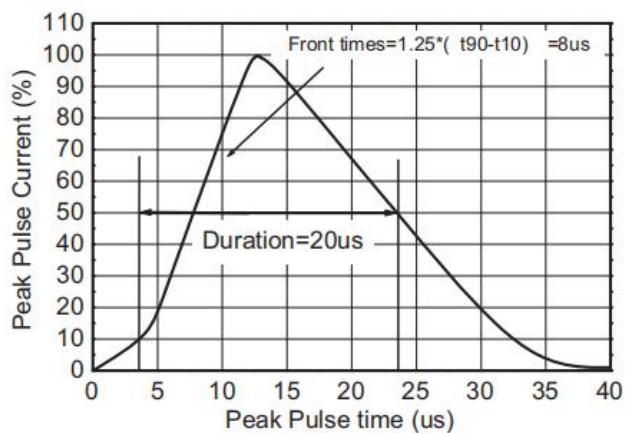
V_{RWM}	Reverse Working Voltage 反向工作电压
$V_{\text{R(BR)}}$	Reverse Breakdown Voltage 反向击穿电压@ $I_{\text{T}}=1\text{mA}$
I_{T}	Test Current 测试电流
I_{R}	Reverse Leakage Current 反向漏电流@ V_{RWM}
V_{C}	Clamping Voltage 钳位电压
I_{PP}	Reverse Peak Pulse Current 浪涌电流
C_{J}	Junction Capacitance 结电容 $V_{\text{IO}}=0\text{V}$,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



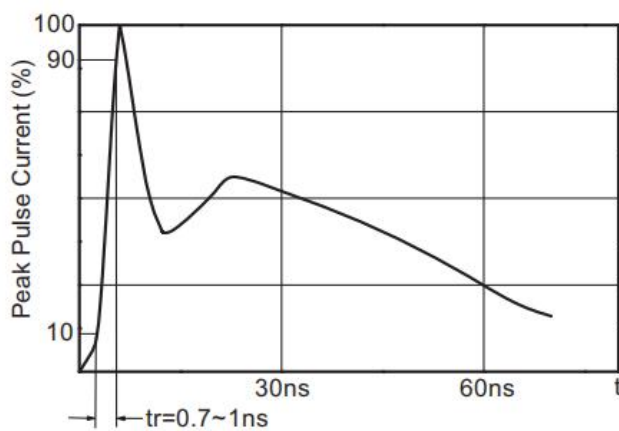
■ Typical Characteristic Curve 典型特性曲线



■ Typical Characteristic Curve 典型特性曲线

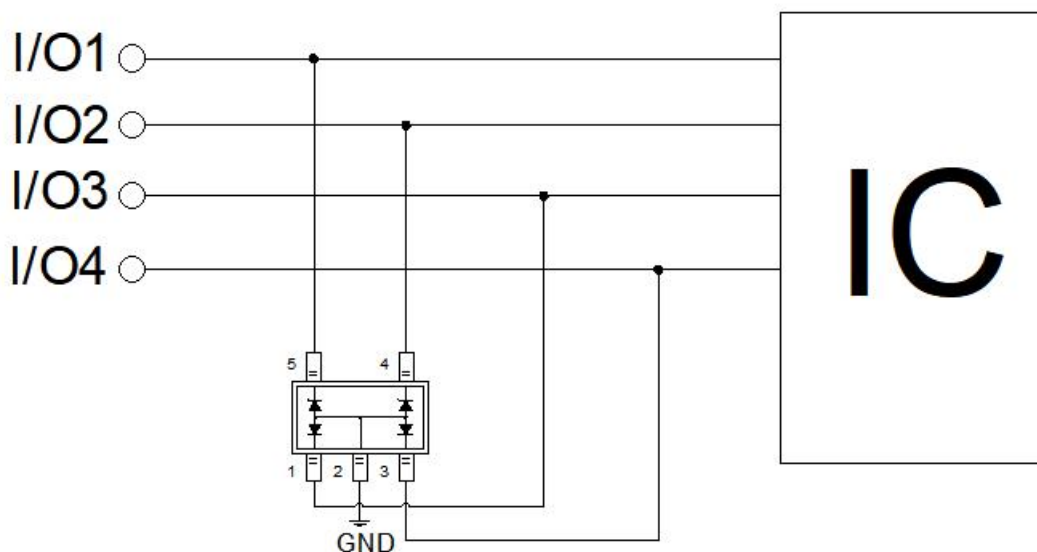


8/20us waveform

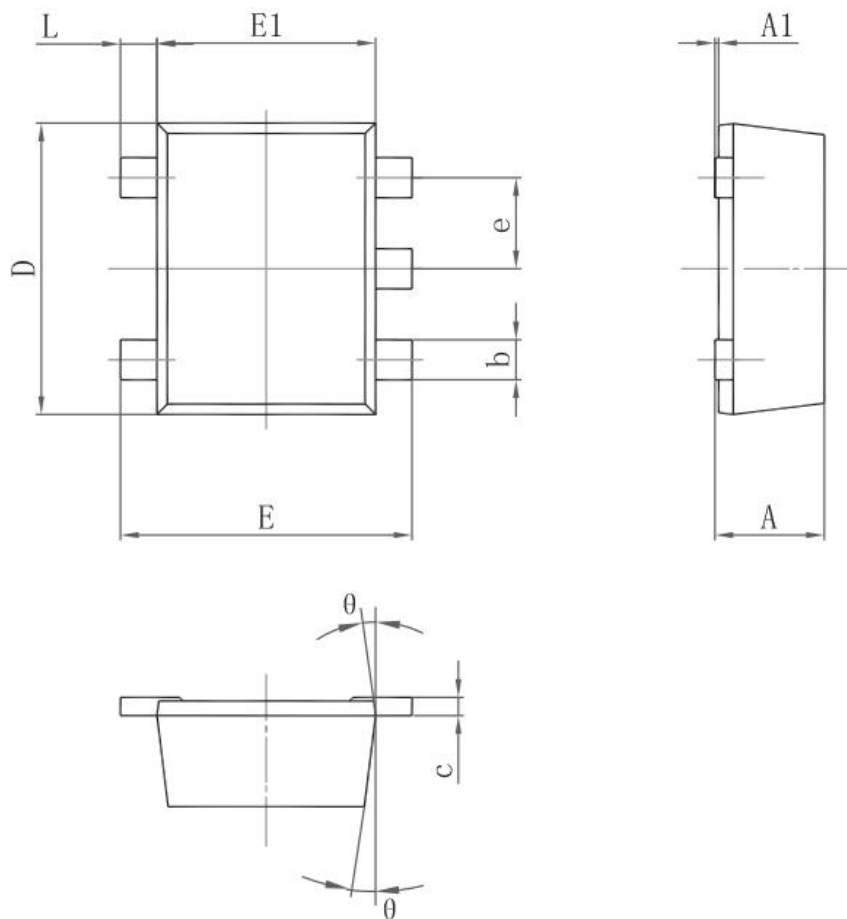


IEC61000-4-2 waveform

■ 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		