

SOT-143 ESD 静电保护二极管

■ Features 特点

Un-directional ESD Protection 单向静电保护

Low capacitance 低电容

■ Applications 应用

Mobile and cordless phones 移动和子母电话

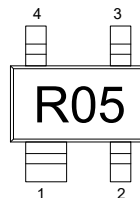
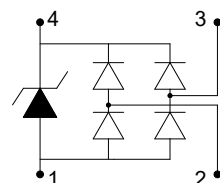
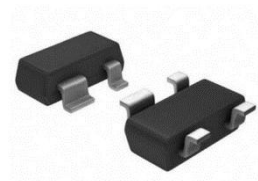
DVI and HDMI interfaces 数字视频和高清多媒体接口

Personal Digital Assistants 个人数码助手

Notebooks, Printers and PCs 笔记本、打印机和电脑

■ Internal Schematic Diagram 内部结构

■ Device Marking 产品打标



■ Absolute Maximum Ratings 最大额定值

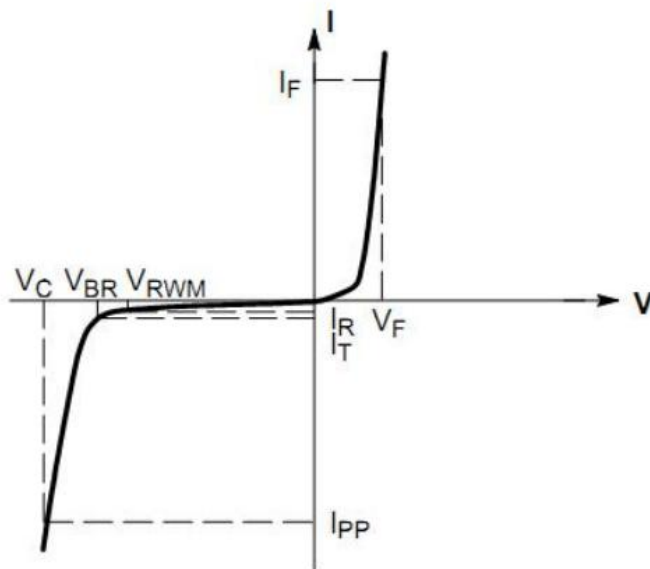
Characteristic 特性参数	Symbol 符号	Rat 额定值	Unit 单位
ESD (IEC61000-4-2 contact discharge) @25°C接触放电	V_{ESD}	± 15	KV
ESD (IEC61000-4-2 air discharge) @25°C空气放电	V_{ESD}	± 15	KV
Peak Pulse Power @25°C峰值脉冲功率	P_{PK}	75	W
Peak Pulse Current @25°C峰值脉冲电流	I_{PP}	6	A
Lead Temperature 管脚温度	T_L	260	°C
Lead Solder Time 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

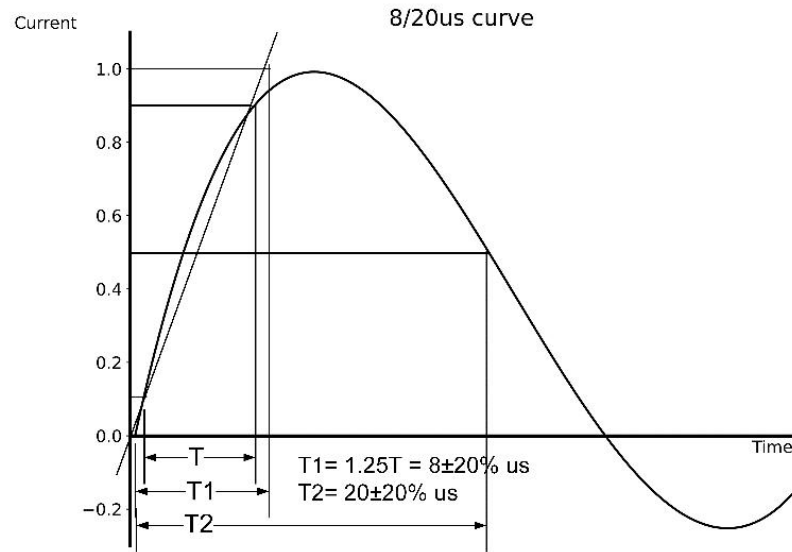
($T_A=25^{\circ}\text{C}$ unless otherwise noted 如无特殊说明, 温度为 25°C)

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			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}		10		V	$I_{\text{PP}}=1\text{A}$, $t_{\text{p}}=8/20\mu\text{s}$
Clamping Voltage 钳位电压	V_{C}		15		V	$I_{\text{PP}}=6\text{A}$, $t_{\text{p}}=8/20\mu\text{s}$
Diode Capacitance 二极管电容	C_{D}	I/O to GND Between I/O	1.2 0.6		pF	$V_{\text{R}}=0\text{V}$, $f=1\text{MHz}$

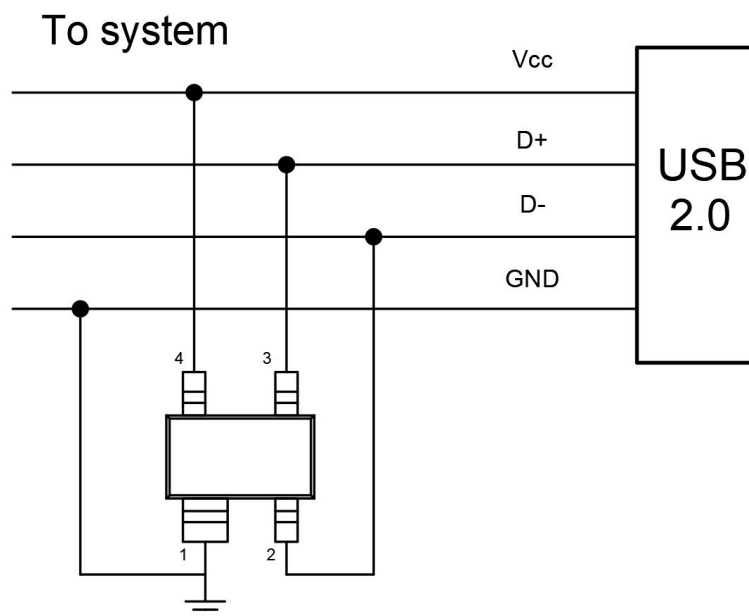
V_{RWM}	Reverse Working Voltage 反向工作电压
$V_{\text{R(BR)}}$	Reverse Breakdown Voltage 反向击穿电压@ $I_{\text{T}}=1\text{mA}$
I_{T}	Test Current 测试电流
I_{R}	Reverse Leakage Current 反向漏电流@ V_{RWM}
V_{C}	Clamping Voltage 钳位电压
I_{PP}	Reverse Peak Pulse Current 浪涌电流
C_{D}	Diode Capacitance 二极管电容 $V_{\text{IO}}=0\text{V}$, $V_{\text{P-P}}=30\text{mV}$, $f=1\text{MHz}$



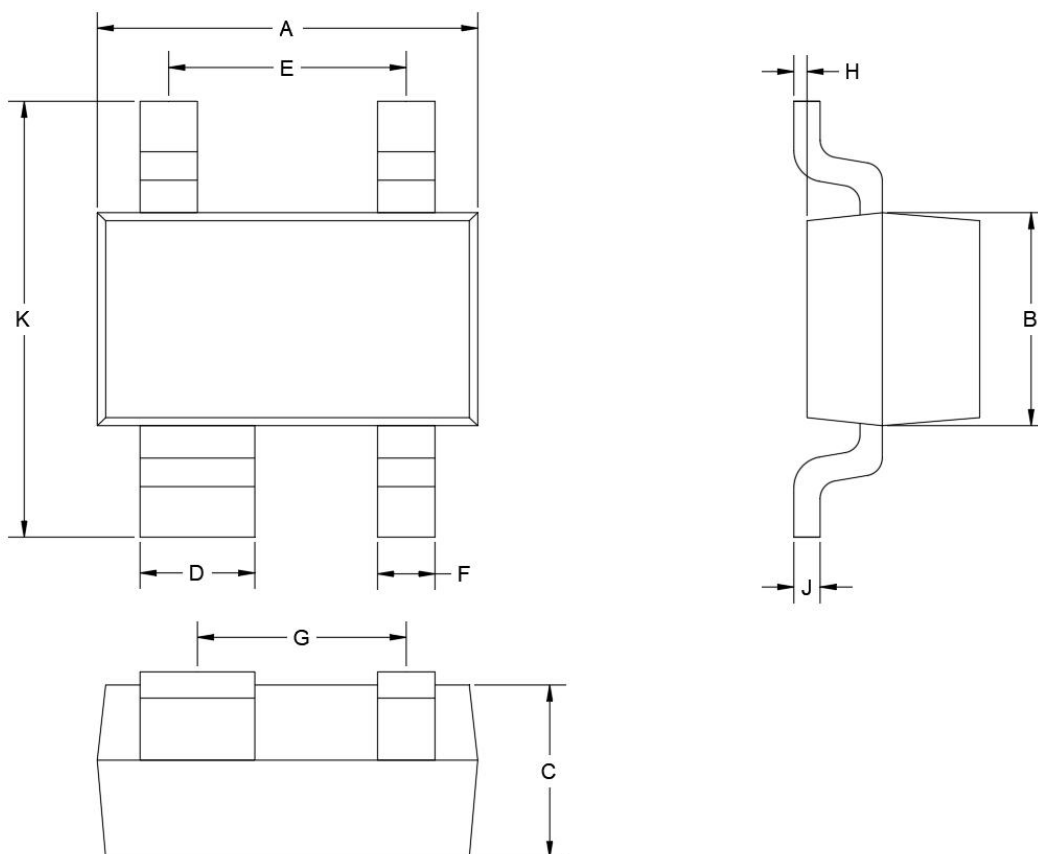
■ Typical Characteristic Curve 典型特性曲线



■ Typical Application 典型应用



■ **Dimension** 外形封装尺寸



Symbol	A	B	C	D	E	F	G	H	J	K
Min	2.70	1.10	0.90	0.78	1.80	0.37	1.59	0.02	0.05	2.20
Max	3.10	1.50	1.10	0.88	2.00	0.43	1.79	0.10	0.15	2.60

dimensions in millimeter