



# 安徽富信半导体科技有限公司

ANHUI FOSAN SEMICONDUCTOR TECHNOLOGY CO., LTD.

FSNC3D12V1B

## SOD-323 ESD 静电保护二极管

### ■ Features 特点

Bidirectional 双向

ESD Protection 静电保护



### ■ Applications 应用

Set-top box 机顶盒

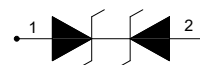
Communications systems 通信系统

Portable electronics 便携式电子产品

Control & monitoring systems 控制与监视系统

Servers, notebooks, and desktop PCs bus protection

服务器、笔记本及台式机总线保护



### ■ Device Marking 产品打标

2D or K



### ■ 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	$P_{PK}$	350	W
Peak Pulse Current @25°C峰值脉冲电流	$I_{PP}$	12	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

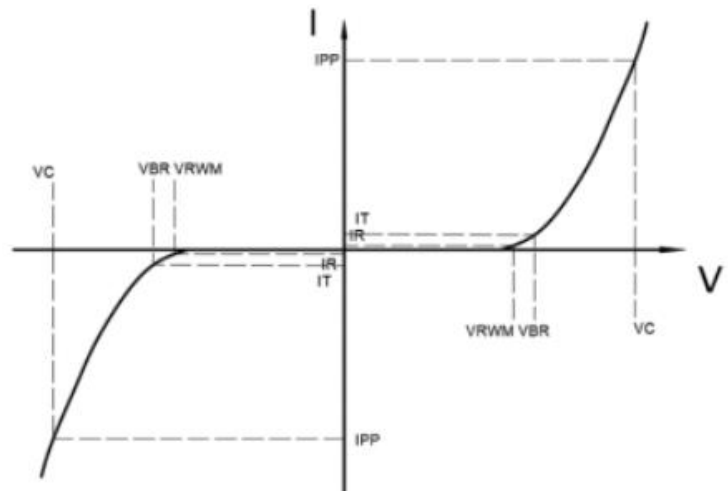


## ■ Electrical Characteristics 电特性

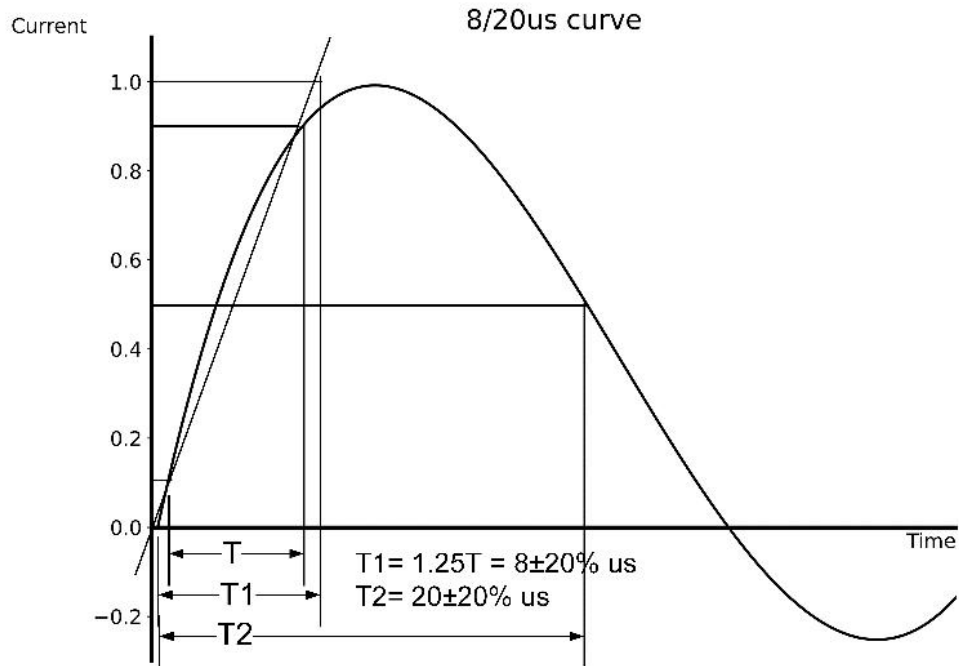
( $T_A=25^{\circ}\text{C}$  unless otherwise noted 如无特殊说明, 温度为  $25^{\circ}\text{C}$ )

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	$V_{RWM}$			12	V	
Reverse Breakdown Voltage 反向击穿电压	$V_{BR}$	13.3			V	$I_T=1\text{mA}$
Reverse Leakage Current 反向漏电流	$I_R$			1	$\mu\text{A}$	$V_{RWM}=12\text{V}$
Clamping Voltage 钳位电压	$V_C$		20		V	$I_{PP}=1\text{A}, t_p=8/20\mu\text{s}$
Clamping Voltage 钳位电压	$V_C$		37		V	$I_{PP}=12\text{A}, t_p=8/20\mu\text{s}$
Diode Capacitance 二极管电容	$C_D$		70		pF	$V_R=0\text{V}, f=1\text{MHz}$

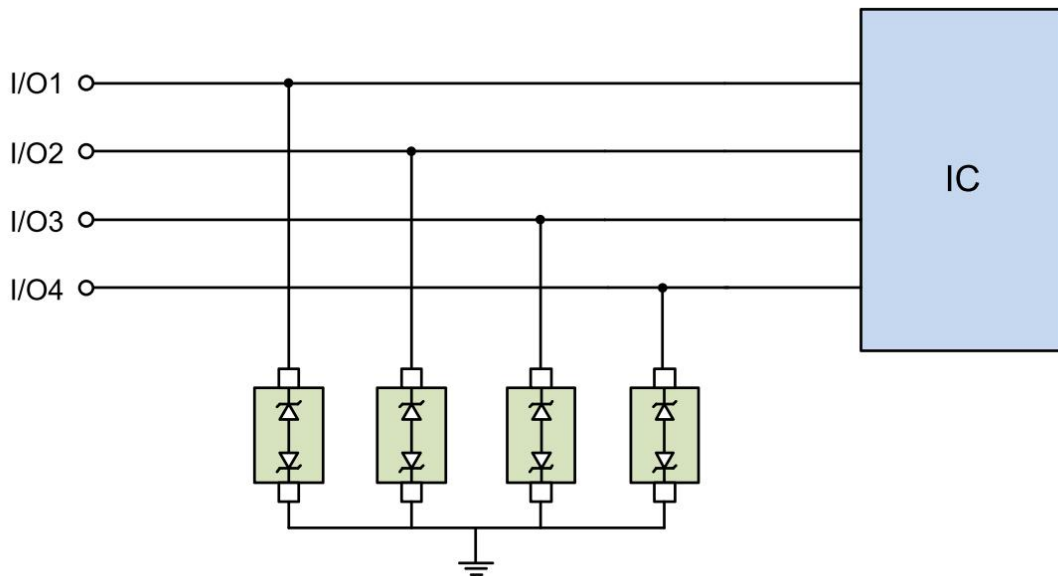
$V_{RWM}$	Reverse Working Voltage 反向工作电压
$V_{R(BR)}$	Reverse Breakdown Voltage 反向击穿电压@ $I_T=1\text{mA}$
$I_T$	Test Current 测试电流
$I_R$	Reverse Leakage Current 反向漏电流@ $V_{RWM}$
$V_C$	Clamping Voltage 钳位电压
$I_{PP}$	Reverse Peak Pulse Current 浪涌电流
$C_J$	Junction Capacitance 结电容 $V_{I0}=0\text{V}, V_{P-P}=30\text{mV},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



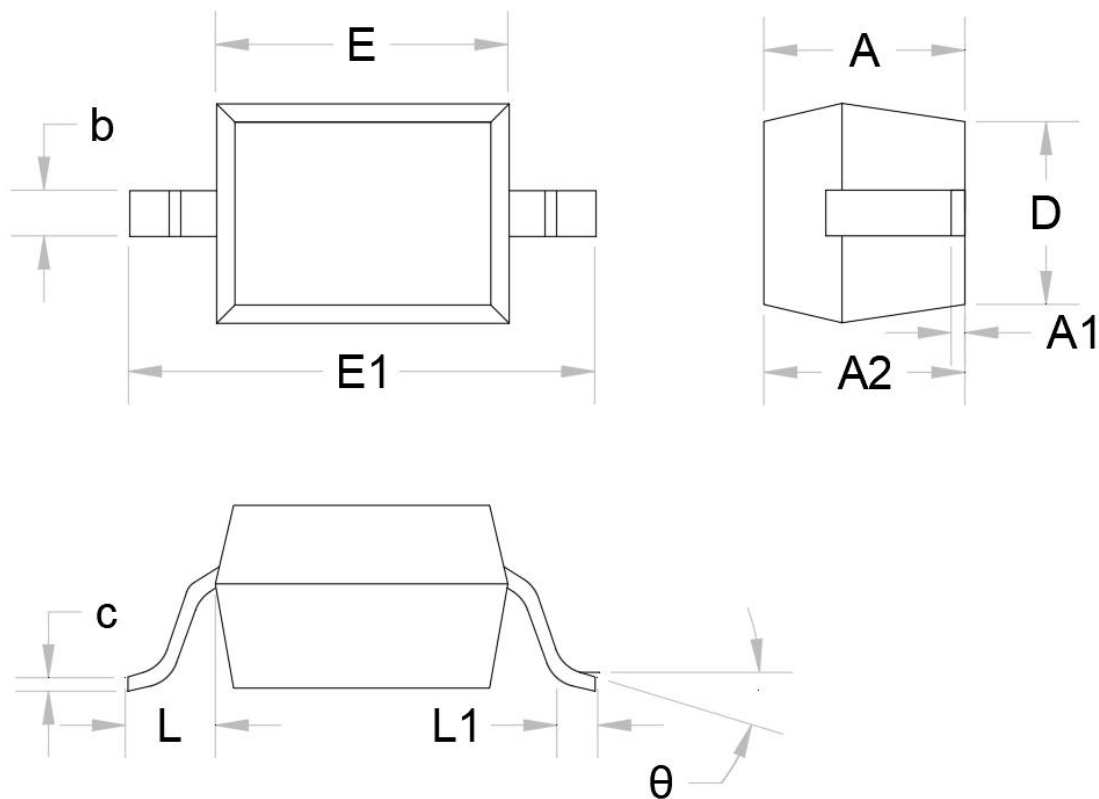
## ■ Typical Characteristic Curve 典型特性曲线



## ■ Typical Application 典型应用



## Dimension 外形封装尺寸



Symbol	Dimensions in Millimeters		Dimensions in Inches	
	Min.	Max.	Min.	Max.
A		1.000		0.039
A1	0.000	0.100	0.000	0.004
A2	0.800	0.900	0.031	0.035
b	0.250	0.350	0.010	0.014
C	0.080	0.150	0.003	0.006
D	1.200	1.400	0.047	0.055
E	1.600	1.800	0.063	0.071
E1	2.550	2.750	0.100	0.108
L	0.475REF		0.019REF	
L1	0.250	0.400	0.010	0.016
$\theta$	0°	8°	0°	8°