



安徽富信半导体科技有限公司

ANHUI FOSAN SEMICONDUCTOR TECHNOLOGY CO., LTD.

FSNC3D**1B

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

Communications systems 通信系统

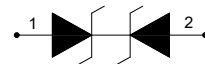
Portable electronics 便携式电子产品

Control & monitoring systems 控制与监视系统

Cellular handsets and accessories 蜂窝手机及配件

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

| | | | | | | | |
|----------------------|-----|----|----|----|----|----|----|
| V _{RWM} (V) | 3.3 | 5 | 8 | 12 | 15 | 24 | 36 |
| Marking | 2A | 2B | 2C | 2D | 2J | 2H | 2N |

■ 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} | ±30 | KV |
| ESD (IEC61000-4-2 air discharge) @25°C空气放电 | V _{ESD} | ±30 | KV |
| Peak Pulse Power @25°C峰值脉冲功率 | P _{PK} | 350 | W |
| 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 |

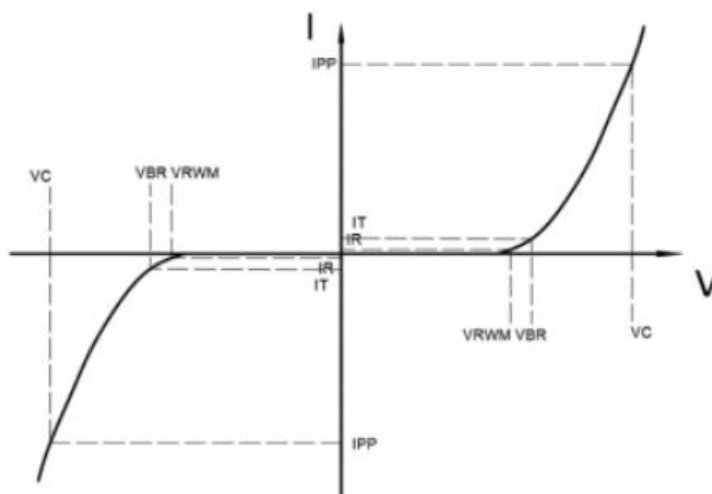


■ Electrical Characteristics 电特性

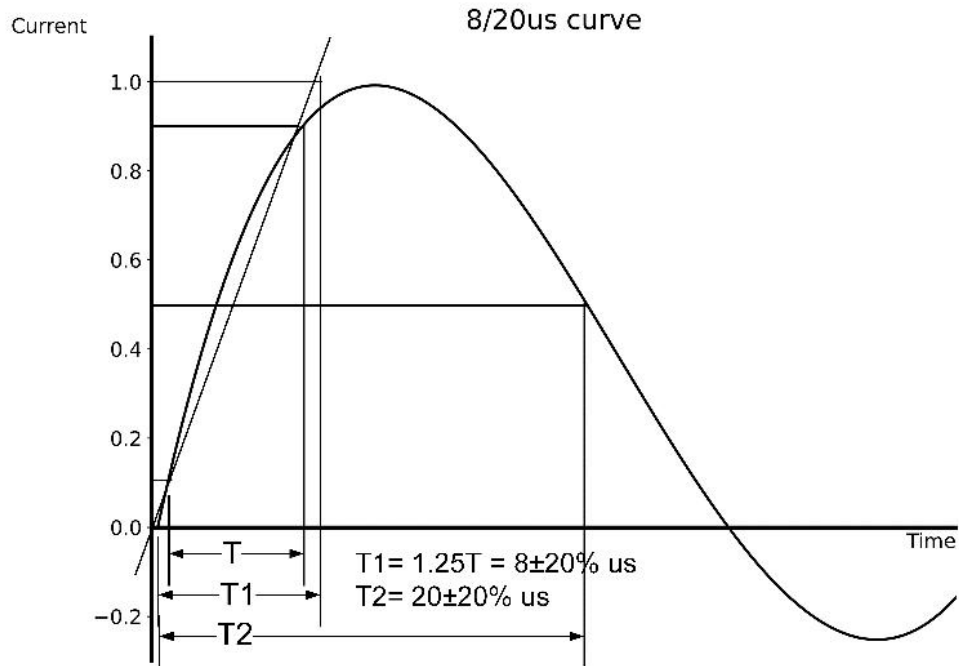
($T_A=25^{\circ}\text{C}$ unless otherwise noted 如无特殊说明, 温度为 25°C)

| Part No.型号 | $V_{RWM}(V)$ | $V_{R(BR)}(V)$ | $V_C(V)@I_T=1A$ | $I_{PP}(A)$ | $V_C(V)@I_T=I_{PP}$ | $I_R(\mu A)$ | $C_J(pF)$ |
|-------------|--------------|----------------|-----------------|-------------|---------------------|--------------|-----------|
| FSNC3D3V1B | 3.3 | 4.5 | 8.5 | 24.0 | 22.0 | 1.0 | 150 |
| FSNC3D5V1B | 5 | 6.5 | 9.5 | 20.0 | 22.0 | 1.0 | 120 |
| FSNC3D8V1B | 8 | 8.5 | 11.0 | 15.0 | 28.0 | 1.0 | 110 |
| FSNC3D12V1B | 12 | 13.3 | 20.0 | 12.0 | 37.0 | 1.0 | 70 |
| FSNC3D15V1B | 15 | 16.5 | 25.0 | 9.0 | 55.0 | 1.0 | 40 |
| FSNC3D24V1B | 24 | 26.0 | 40.0 | 6.0 | 63.0 | 1.0 | 30 |
| FSNC3D36V1B | 36 | 38.0 | 55.0 | 4.0 | 72.0 | 1.0 | 25 |

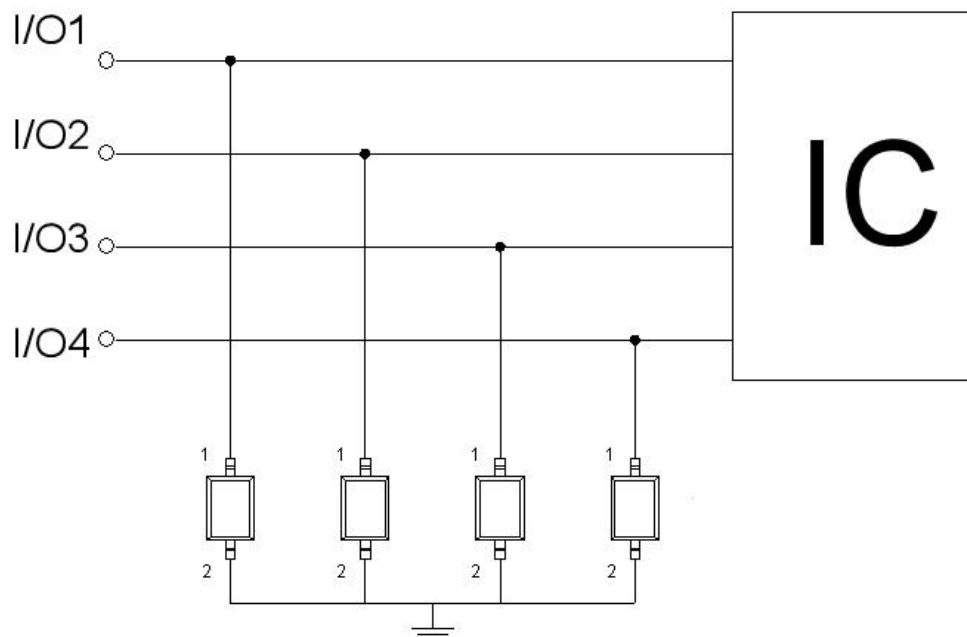
| | |
|-------------|---|
| V_{RWM} | Reverse Working Voltage 反向工作电压 |
| $V_{R(BR)}$ | Reverse Breakdown Voltage 反向击穿电压@ $I_T=1mA$ |
| I_T | Test Current 测试电流 |
| I_R | Reverse Leakage Current 反向漏电流@ V_{RWM} |
| V_C | Clamping Voltage 钳位电压 |
| I_{PP} | Reverse Peak Pulse Current 浪涌电流 |
| C_J | Junction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



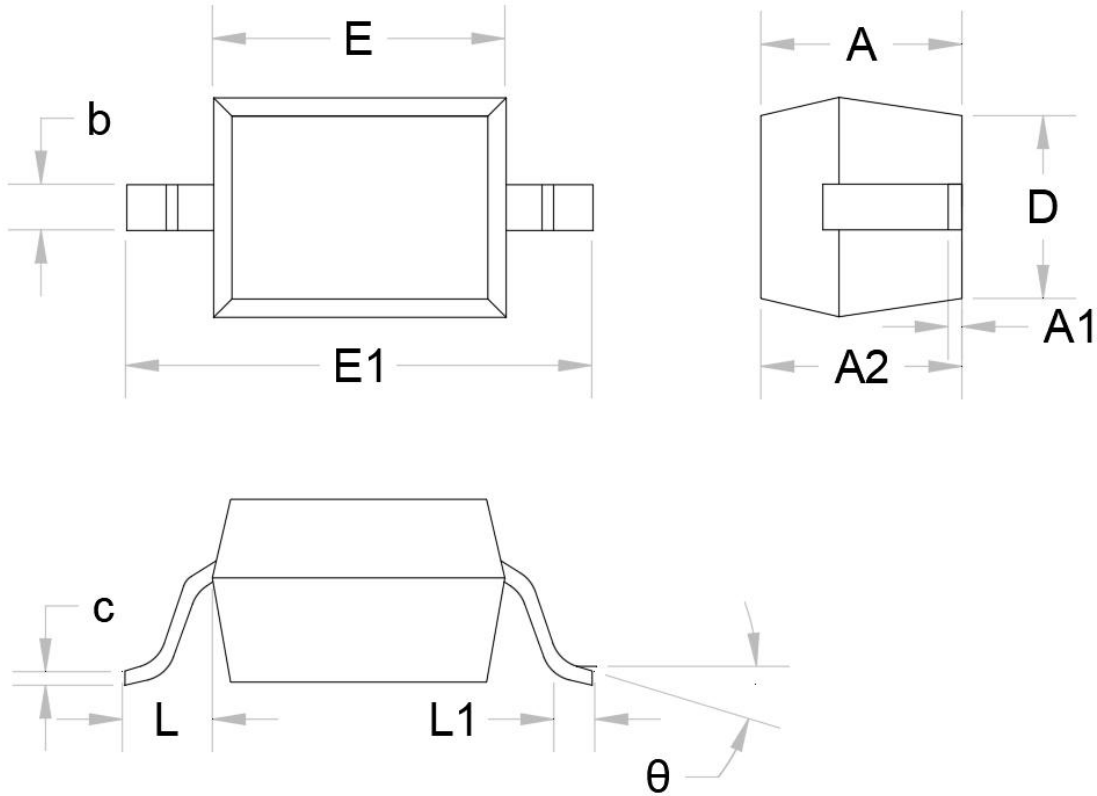
■ Typical Characteristic Curve 典型特性曲线



■ 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 |
| θ | 0° | 8° | 0° | 8° |