



安徽富信半导体科技有限公司

ANHUI FOSAN SEMICONDUCTOR TECHNOLOGY CO., LTD.

FSNC3D3V1BC

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

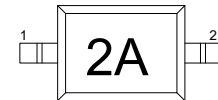
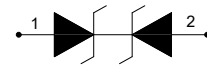
Communications systems 通信系统

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

■ 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}	250	W
Peak Pulse Current @25°C峰值脉冲电流	I_{PP}	30	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

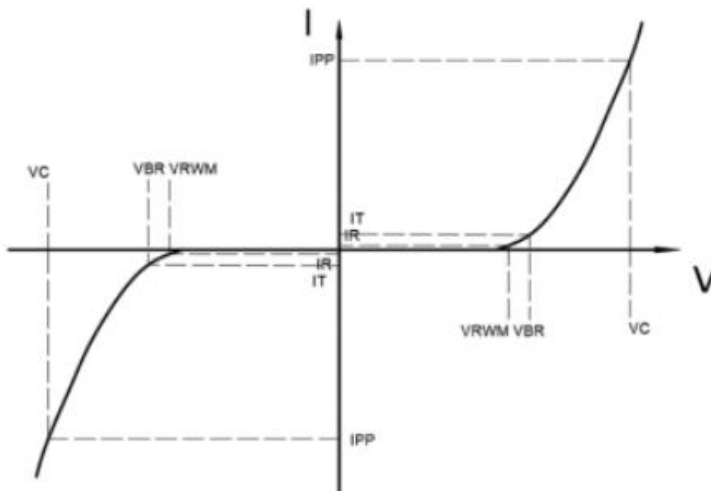


■ Electrical Characteristics 电特性

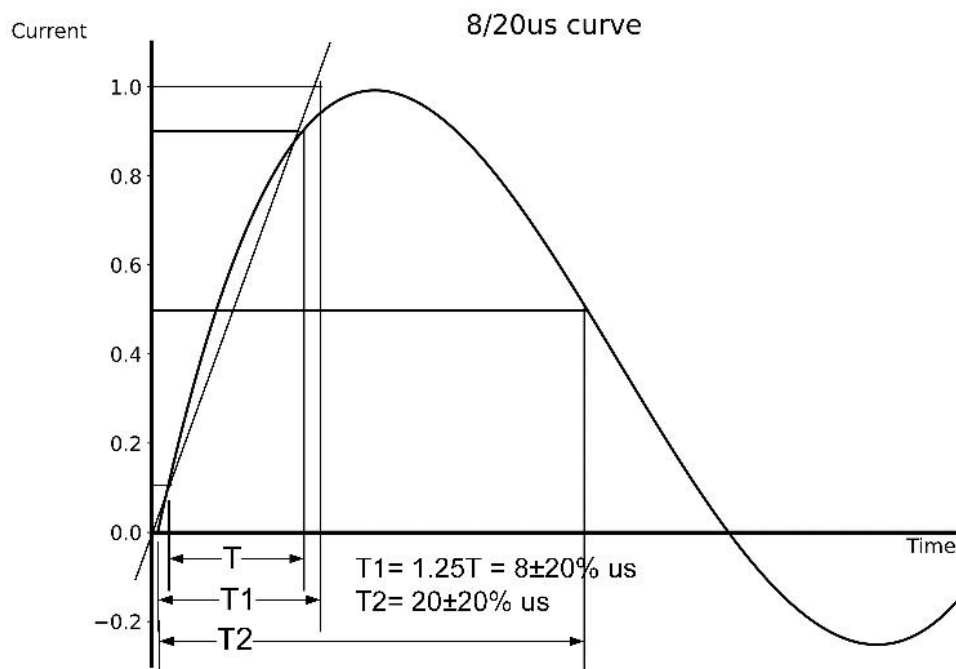
($T_A=25^{\circ}\text{C}$ unless otherwise noted 如无特殊说明, 温度为 25°C)

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}			3.3	V	
Reverse Breakdown Voltage 反向击穿电压	V_{BR}	3.5			V	$I_{\text{T}}=1\text{mA}$
Reverse Leakage Current 反向漏电流	I_{R}			1	μA	$V_{\text{RWM}}=3.3\text{V}$
Clamping Voltage 钳位电压	V_{C}		8		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	$I_{\text{PP}}=30\text{A}, t_{\text{p}}=8/20\mu\text{s}$
Diode Capacitance 二极管电容	C_{D}		60		pF	$V_{\text{R}}=0\text{V}, f=1\text{MHz}$

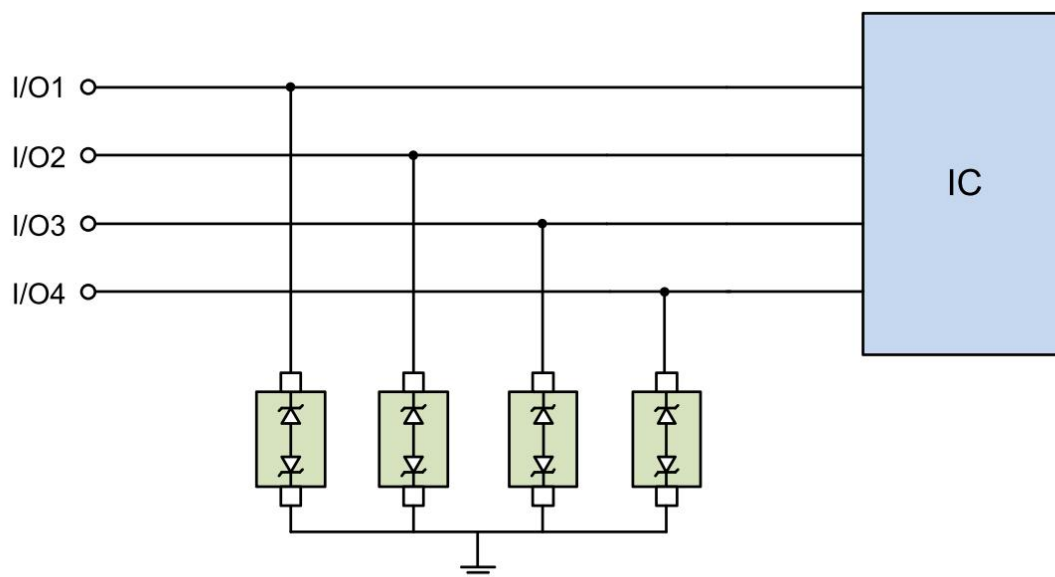
V_{RWM}	Reverse Working Voltage 反向工作电压
$V_{\text{R(BR)}}$	Reverse Breakdown Voltage 反向击穿电压@ $I_{\text{T}}=1\text{mA}$
I_{T}	Test Current 测试电流
I_{R}	Reverse Leakage Current 反向漏电流@ V_{RWM}
V_{C}	Clamping Voltage 钳位电压
I_{PP}	Reverse Peak Pulse Current 浪涌电流
C_{J}	Junction Capacitance 结电容 $V_{\text{IO}}=0\text{V},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



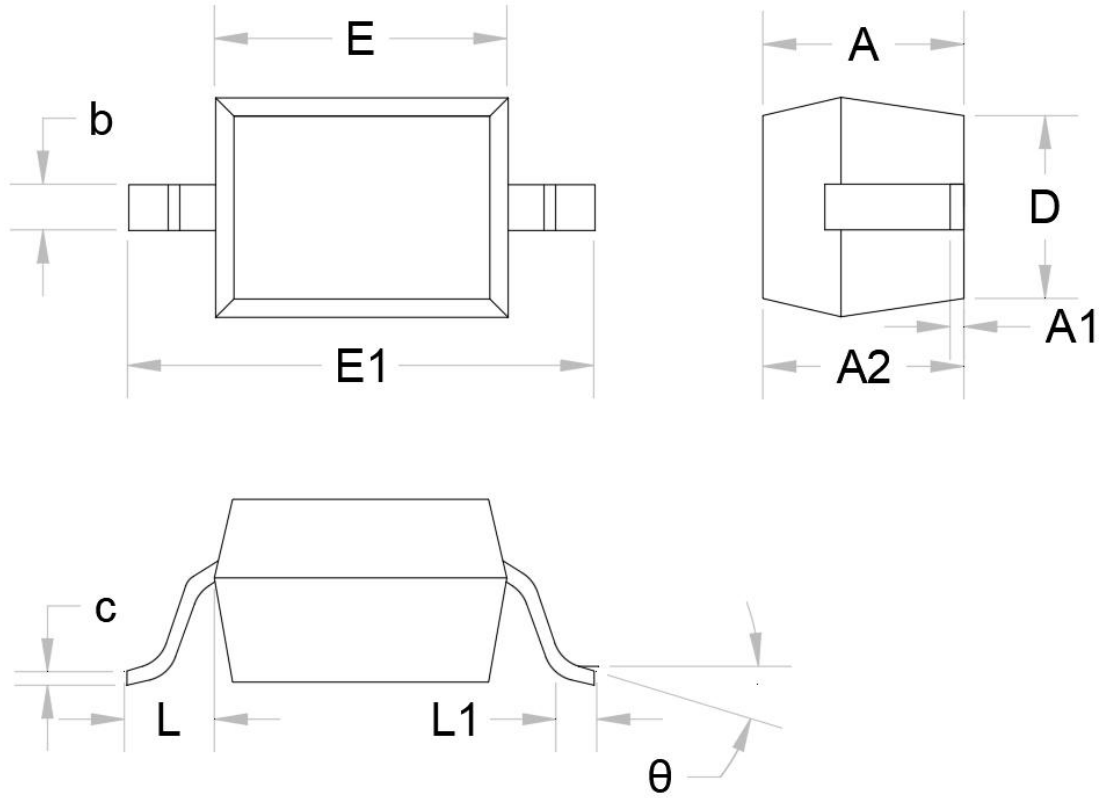
■ Typical Characteristic Curve 典型特性曲线



■ Typical 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°