FSNC23T24V2BD

SOT-23 ESD 静电保护二极管

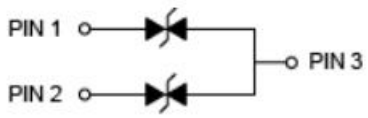
■Features 特点

Two Bidirectional Lines 两个双向
ESD Protection 静电保护

■Applications 应用

Portable electronics 便携式电子产品
Control & monitoring systems 控制与监视系统
Cellular handsets and accessories 蜂窝手机及附件
Servers, notebooks, and desktop PCs bus protection
服务器、笔记本及台式机总线保护

■Internal Schematic Diagram 内部结构



■Absolute Maximum Ratings 最大额定值

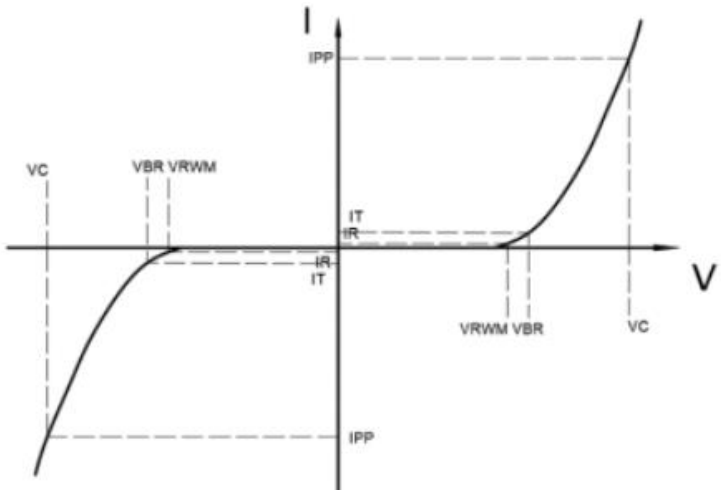
Characteristic 特性参数	Symbol 符号	Rat 额定值	Unit 单位
ESD (IEC61000-4-2 contact discharge) @25℃接触放电	V_{ESD}	±23	KV
ESD (IEC61000-4-2 air discharge) @25℃空气放电	V_{ESD}	±27	KV
Peak Pulse Power @25℃峰值脉冲功率	P_{PK}	200	W
Peak Pulse Current @25℃峰值脉冲电流	I_{PP}	3	A
Lead Temperature 管脚温度	T_L	260	℃
Lead Solder Time 管脚焊接时间	T_L	10	S
Operating Temperature 工作温度	T_{op}	-40~125	℃
Junction Temperature 结温	T_J	150	℃
Storage Temperature 储存温度	T_{stg}	-55~150	℃

■Electrical Characteristics 电特性

(T_A=25℃ unless otherwise noted 如无特殊说明，温度为 25℃)

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}			24	V	
Reverse Breakdown Voltage 反向击穿电压	V_{BR}	26.4		32	V	I_T=1mA
Reverse Leakage Current 反向漏电流	I_R			0.05	μA	V_{RWM}=24V
Clamping Voltage 钳位电压	V_C			40	V	I_{PP}=1A,tp=8/20μs
Clamping Voltage 钳位电压	V_C			70	V	I_{PP}=3A,tp=8/20μs
Diode Capacitance 二极管电容	C_D		11	18	pF	V_R=0V,f=1MHz

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_D	Diode Capacitance 二极管电容 V_{IO}=0V, V_{P-P} = 30mV, f = 1MHz



■Typical Characteristic Curve 典型特性曲线

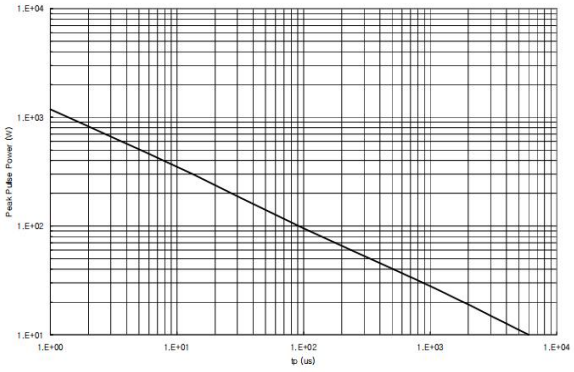


Figure 1. Peak Pulse Power Derating

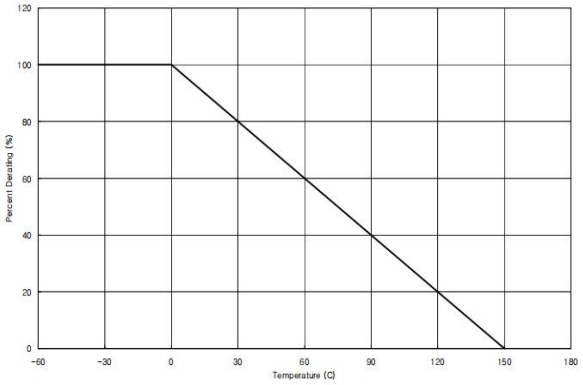


Figure 2. Peak Pulse Power Derating vs Temperature

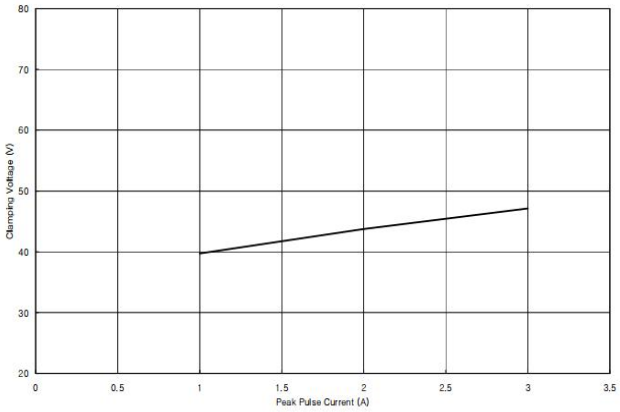


Figure 3. Peak Pulse Current vs Clamping Voltage

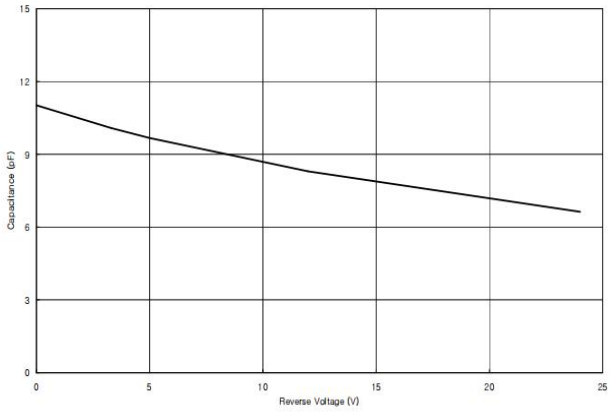
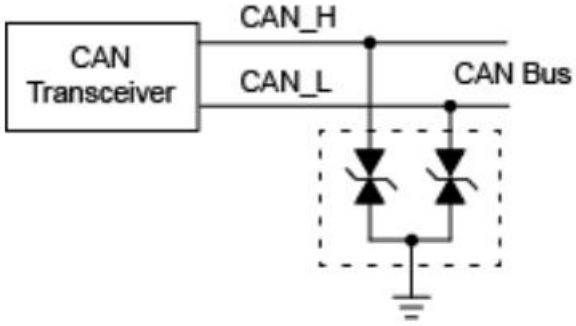
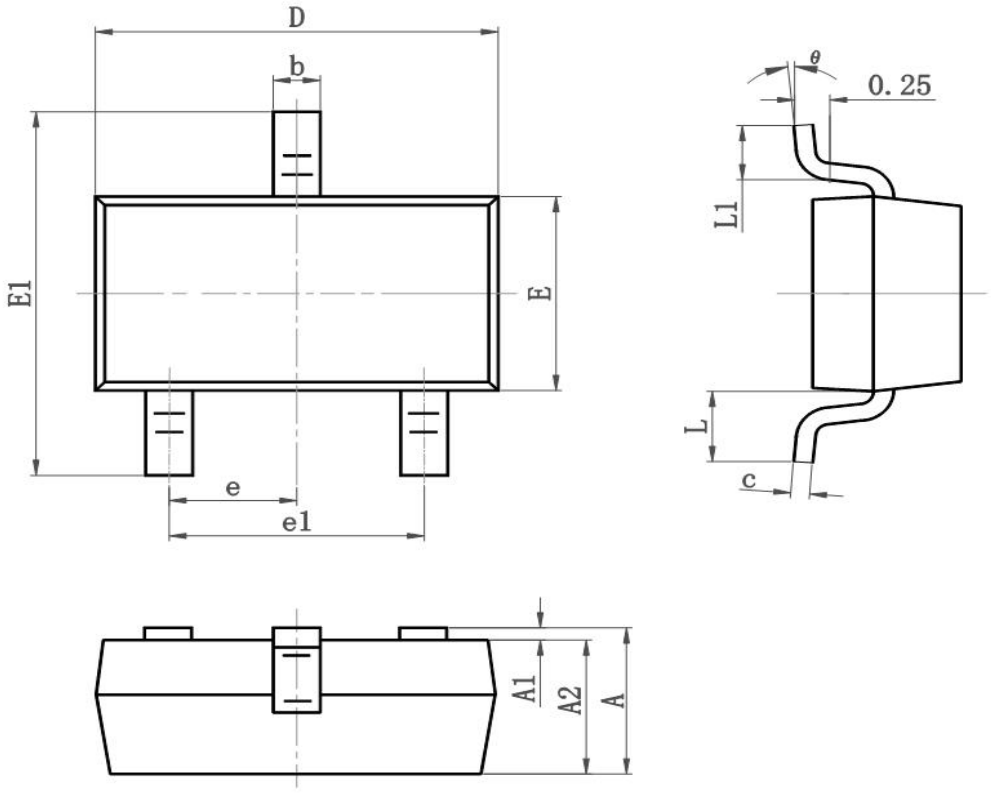


Figure 4. Reverse Voltage vs Capacitance

■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	0.900	1.150	0.035	0.045
A1	0.000	0.100	0.000	0.004
A2	0.900	1.050	0.035	0.041
b	0.300	0.500	0.012	0.020
c	0.080	0.150	0.003	0.006
D	2.800	3.000	0.110	0.118
E	1.200	1.400	0.050	0.055
E1	2.250	2.550	0.089	0.100
e	0.900	1.00	0.035	0.039
e1	1.800	2.000	0.071	0.079
L	0.500	0.600	0.020	0.024
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°