



安徽富信半导体科技有限公司

ANHUI FOSAN SEMICONDUCTOR TECHNOLOGY CO., LTD.

FSESDSOT05C

SOT-23 ESD 静电保护二极管

■ Features 特点

Two Un-directional Lines 两个单向

Or Bidirectional 或双向

ESD Protection 静电保护

■ Applications 应用

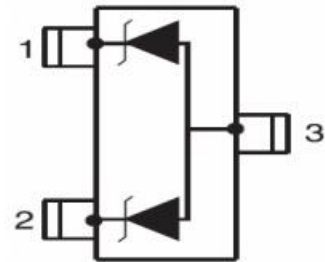
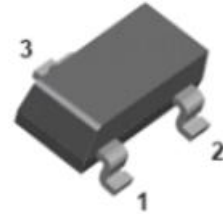
Computer 计算机

Printer 打印机

Communication System 通信系统

■ 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°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 Current @25°C峰值脉冲电流	I_{PP}	23	A
Peak Pulse Power @25°C峰值脉冲功率	P_{PK}	320	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}	-55~125	°C

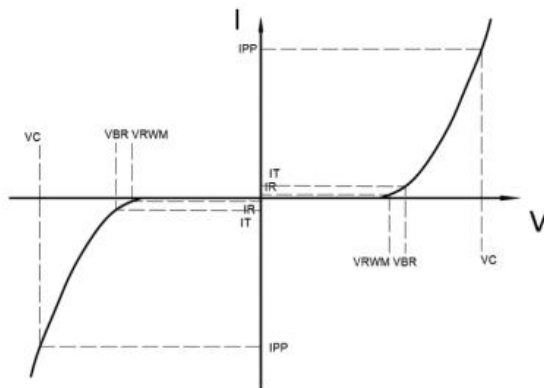


■ Electrical Characteristics 电特性

($T_A=25^{\circ}\text{C}$ 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	$V_{\text{R(BR)}}$	6			V	$I_{\text{T}}=1\text{mA}$
Reverse Leakage Current 反向漏电流	I_{R}			0.5	μA	$V_{\text{RWM}}=5\text{V}$
Forward Voltage 正向电压	V_{F}	0.2	0.8	1.2	V	$I_{\text{F}}=10\text{mA}$
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}		14		V	$I_{\text{PP}}=23\text{A}, t_{\text{p}}=8/20\mu\text{s}$
Junction Capacitance 结电容	C_{J}		160		pF	$V_{\text{R}}=0\text{V}, f=1\text{MHz}$

Symbol	Parameters
V_{RWM}	Peak Reverse Working Voltage
I_{R}	Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_{T}
I_{T}	Test Current
I_{PP}	Maximum Reverse Peak Pulse Current
V_{C}	Clamping Voltage @ I_{PP}
I_{F}	Forward Current
V_{F}	Forward Voltage @ I_{F}





■ Typical Characteristic Curve 典型特性曲线

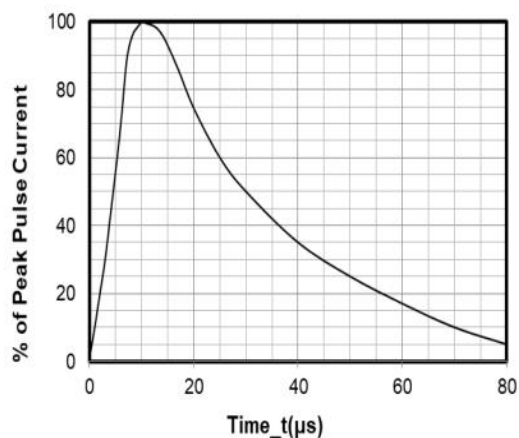


Figure 1: Pulse Waveform

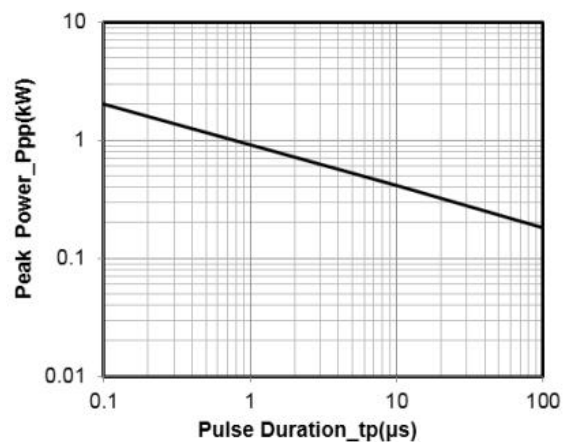


Figure 2: Peak Power Characteristics

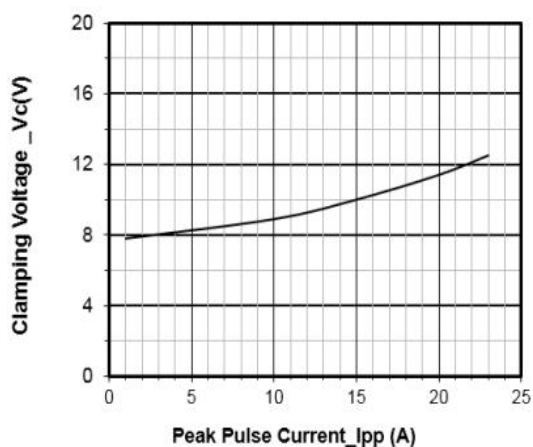


Figure 3: Clamp Voltage Characteristics

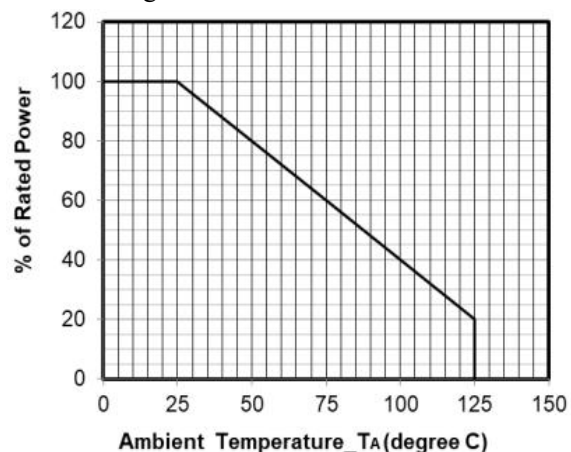


Figure 4: Power Characteristics

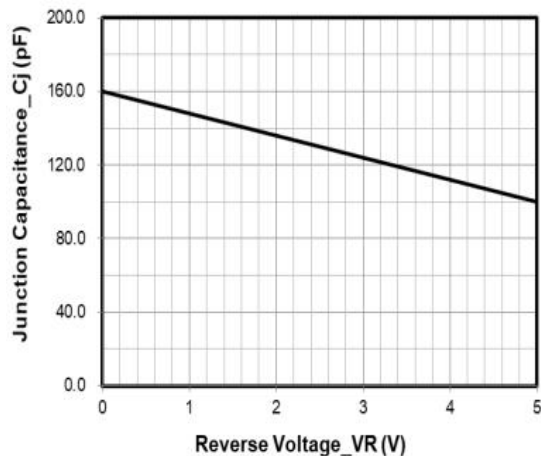
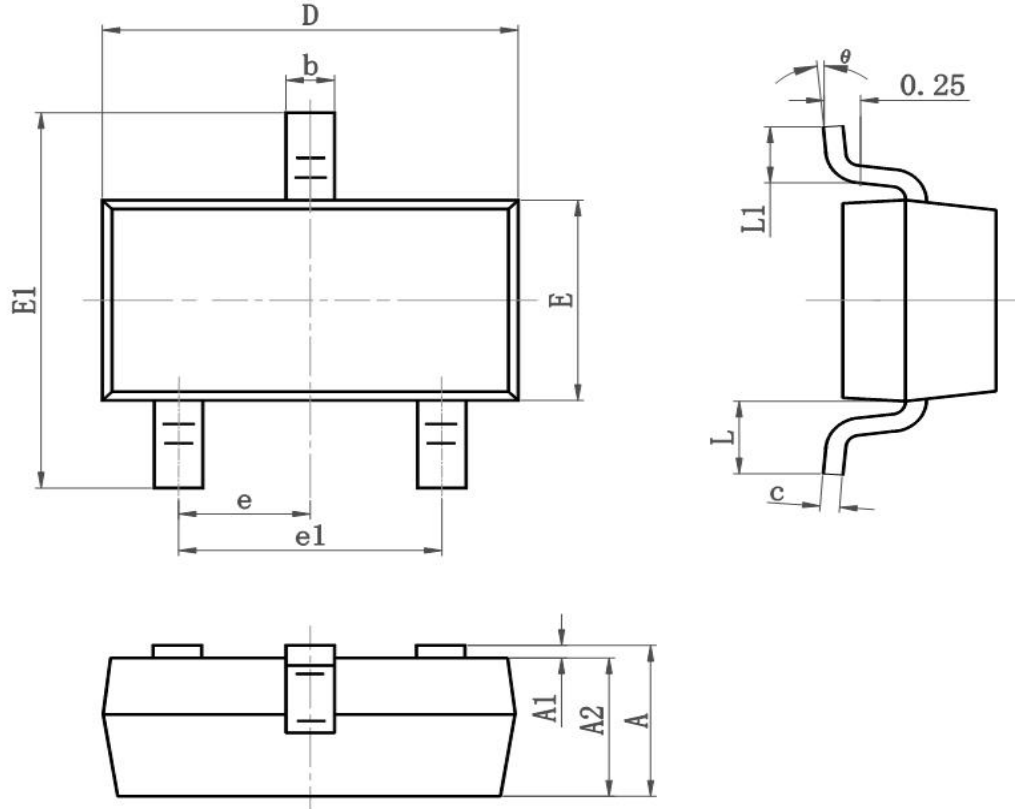


Figure 5: Capacitance Characteristics



■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	0.950TYP		0.037TYP	
e1	1.800	2.000	0.071	0.079
L	0.550REF		0.022REF	
L1	0.300	0.500	0.012	0.020
θ	0°	8°	0°	8°