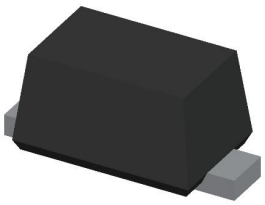
SOD-923 ESD 静电保护二极管

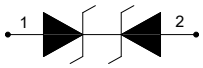


■Features 特点

Un-directional ESD Protection 单通道单向静电保护

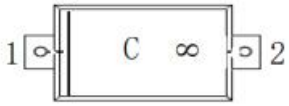
■Applications 应用

Notebooks, desktops, and servers 笔记本、台式机和服务器
Cellular handsets and accessories 蜂窝手机及附件
Personal Digital Assistants 个人数码助手
Peripherals 电脑外设



■Internal Schematic Diagram 内部结构

■Device Marking 产品打标



■Absolute Maximum Ratings 最大额定值

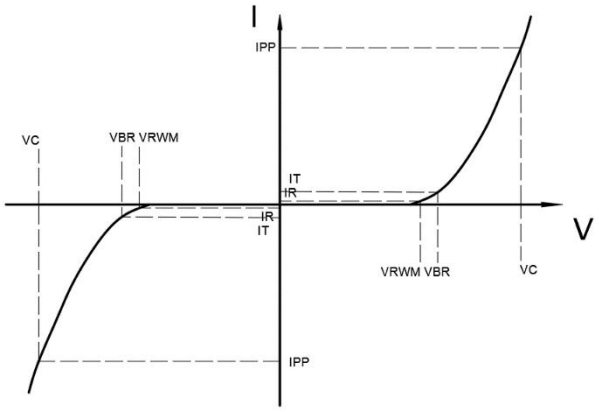
Characteristic 特性参数	Symbol 符号	Rat 额定值	Unit 单位
ESD (IEC61000-4-2 contact discharge) @25℃接触放电	V_{ESD}	±20	KV
ESD (IEC61000-4-2 air discharge) @25℃空气放电	V_{ESD}	±20	KV
Peak Pulse Power @25℃峰值脉冲功率	P_{PK}	68	W
Peak Pulse Current @25℃峰值脉冲电流	I_{PP}	5.5	A
Lead Temperature 管脚温度	T_L	260	℃
Lead Solder Time 管脚焊接时间	T_L	10	S
Operating Temperature 工作温度	T_{op}	-40~85	℃
Junction Temperature 结温	T_J	-55~125	℃
Storage Temperature 储存温度	T_{stg}	-55~150	℃

■Electrical Characteristics 电特性

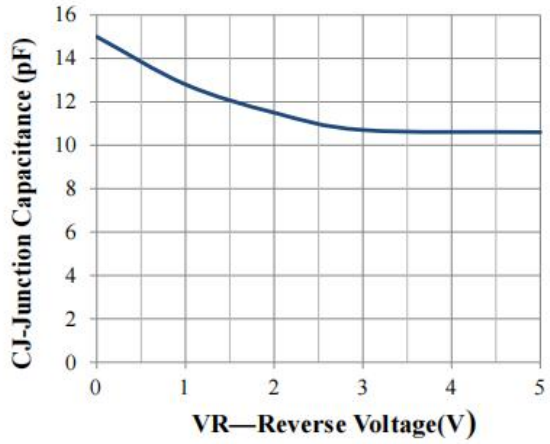
(T_A=25℃ unless otherwise noted 如无特殊说明，温度为 25℃)

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}			5	V	
Reverse Breakdown Voltage 反向击穿电压	V_{BR}	5.7		9	V	I_T=1mA
Reverse Leakage Current 反向漏电流	I_R			0.1	μA	V_{RWM}=5V
Clamping Voltage 钳位电压	V_C			12	V	I_{PP}=1A,tp=8/20μs
Clamping Voltage 钳位电压	V_C			17	V	I_{PP}=5.5A,tp=8/20μs
Diode Capacitance 二极管电容	C_D	8	8.9	15	pF	V_R=0V,f=1MHz

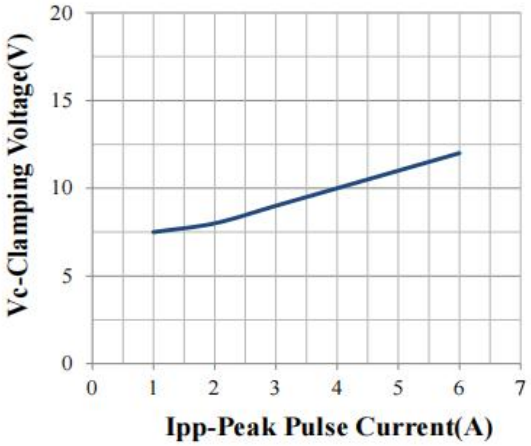
V_{RWM}	Reverse Working Voltage 反向工作电压
$V_{R(BR)}$	Reverse Breakdown Voltage 反向击穿电压@I_T=1mA
I_T	Test Current 测试电流
I_R	Reverse Leakage Current 反向漏电流@V_{RWM}
V_C	Clamping Voltage 钳位电压
I_{PP}	Reverse Peak Pulse Current 浪涌电流
C_D	Diode Capacitance 结电容 V_{IO}=0V, f = 1MHz



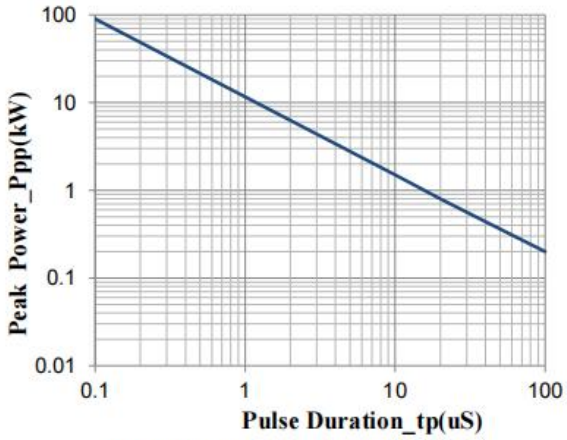
■Typical Characteristic Curve 典型特性曲线



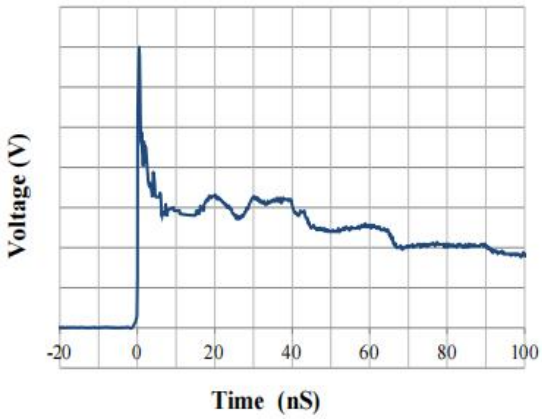
Junction Capacitance vs. Reverse Voltage



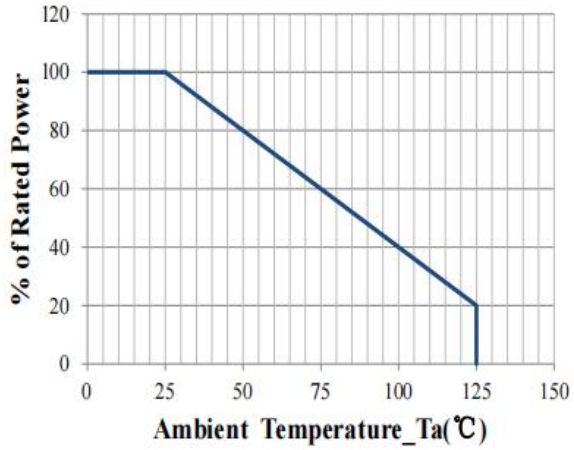
Clamping Voltage vs. Peak Pulse Current



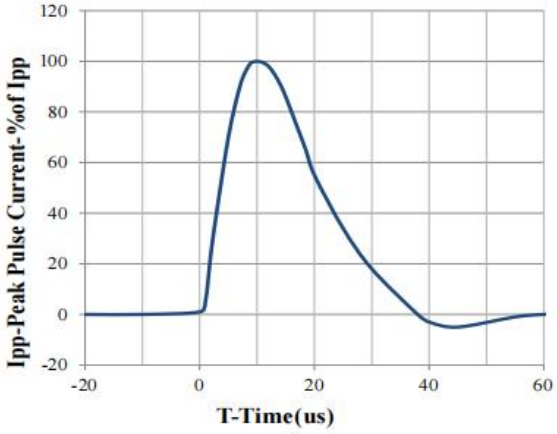
Peak Pulse Power vs. Pulse Time



IEC61000-4-2 Pulse Waveform

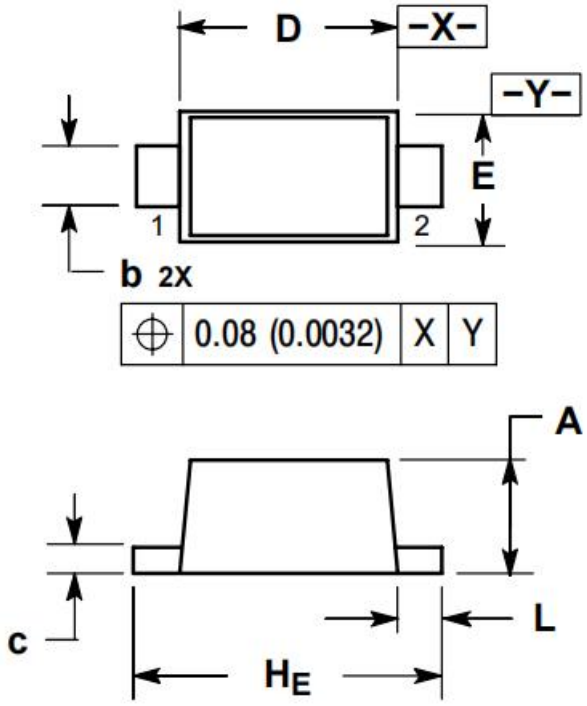


Power Derating Curve



8 X 20us Pulse Waveform

■**Dimension 外形封装尺寸**



DIM	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.34	0.37	0.40	0.013	0.015	0.016
b	0.15	0.20	0.25	0.006	0.008	0.010
c	0.07	0.12	0.17	0.003	0.005	0.007
D	0.75	0.80	0.85	0.030	0.031	0.033
E	0.55	0.60	0.65	0.022	0.024	0.026
H_E	0.95	1.00	1.05	0.037	0.039	0.041
L	0.05	0.10	0.15	0.002	0.004	0.006