

SOT-23 ESD 静电保护二极管

■ Features 特点

Bidirectional ESD Protection 双向静电保护

Operating voltage 工作电压: 7V or 12V

■ Applications 应用

Portable electronics 便携式电子产品

Control & monitoring systems 控制与监视系统

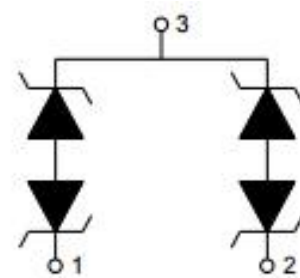
Cellular handsets and accessories 蜂窝手机及配件

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

FSNC712A=712



■ Absolute Maximum Ratings 最大额定值

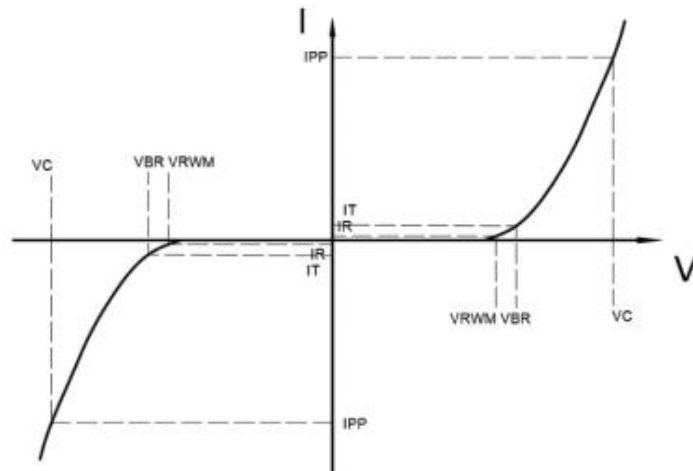
Characteristic 特性参数	Symbol 符号	Rat 额定值	Unit 单位
ESD (IEC61000-4-2 contact discharge)@25°C接触放电	V_{ESD}	± 8	KV
ESD (IEC61000-4-2 air discharge) @25°C空气放电	V_{ESD}	± 15	KV
Peak Pulse Current @25°C峰值脉冲电流	I_{PP}	17	A
Peak Pulse Power @25°C峰值脉冲功率	P_{PK}	350	W
Lead Temperature 管脚温度	T_L	260	°C
Lead Solder Time 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

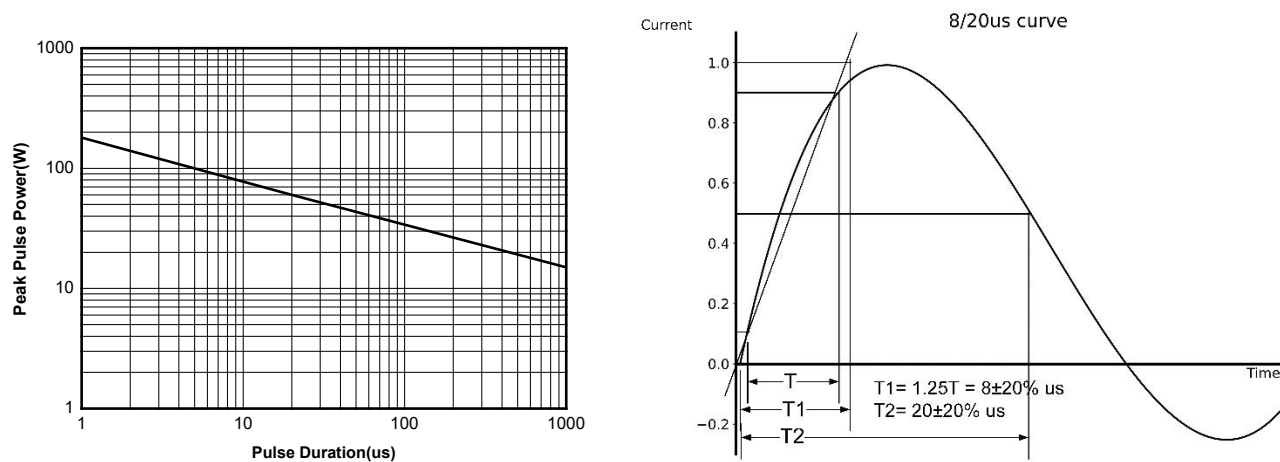
($T_A=25^{\circ}\text{C}$ unless otherwise noted 如无特殊说明, 温度为 25°C)

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}			7/12	V	
Reverse Breakdown Voltage 反向击穿电压	$V_{\text{R(BR)}}$	7.5/13.3			V	$I_{\text{T}}=1\text{mA}$
Reverse Leakage Current 反向漏电流	I_{R}			1	μA	$V_{\text{R}}=V_{\text{RWM}}$
Clamping Voltage 钳位电压	V_{C}		14/20		V	$I_{\text{PP}}=5\text{A}, t_{\text{p}}=8/20\mu\text{s}$
Clamping Voltage 钳位电压	V_{C}		19/26		V	$I_{\text{PP}}=17\text{A}, t_{\text{p}}=8/20\mu\text{s}$
Junction Capacitance 结电容	C_{J}		55		pF	$V_{\text{R}}=0\text{V}, f=1\text{MHz}$

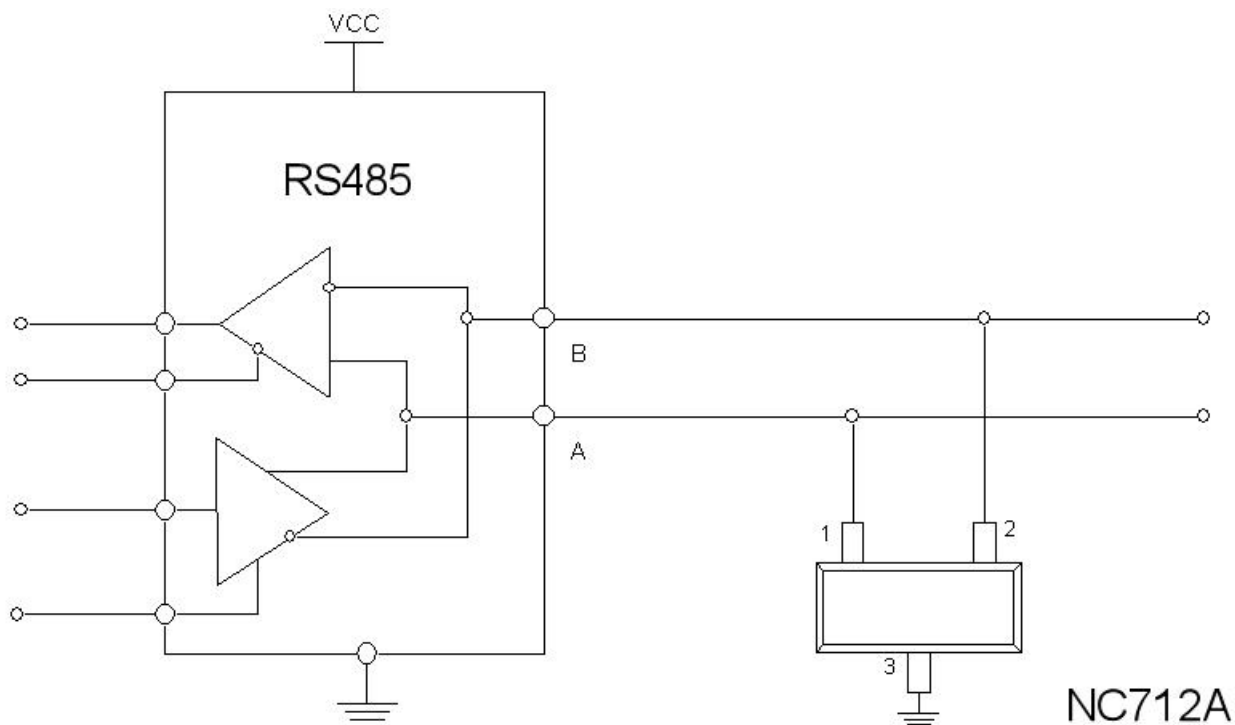
Symbol	Parameters
V_{RWM}	Peak Reverse Working Voltage
I_{R}	Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_{T}
I_{T}	Test Current
I_{PP}	Maximum Reverse Peak Pulse Current
V_{C}	Clamping Voltage @ I_{PP}
I_{F}	Forward Current
V_{F}	Forward Voltage @ I_{F}



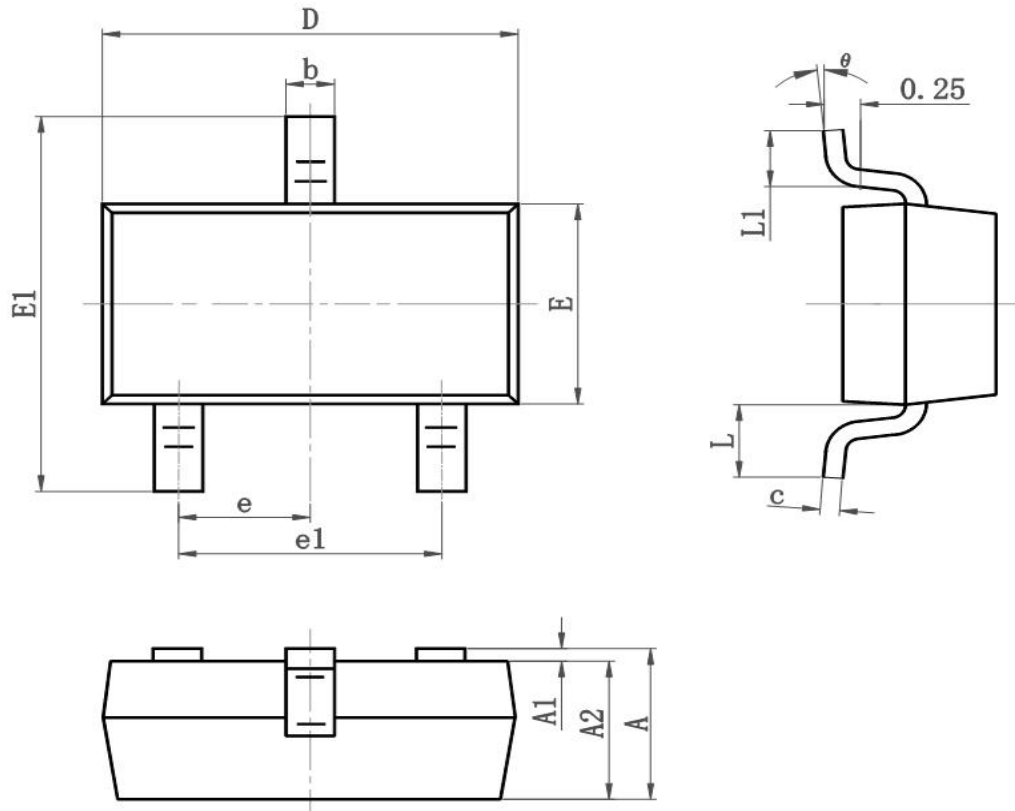
■ Typical Characteristic Curve 典型特性曲线



■ 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°