

SOD-323 ESD 静电保护二极管

■ Features 特点

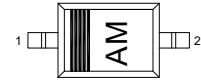
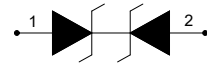
Bidirectional ESD Protection 双向静电保护

■ Applications 应用

LIN-bus protection 串行通信总线保护

Automotive applications 自动系统应用

■ Device Marking 产品打标



■ Absolute Maximum Ratings 最大额定值

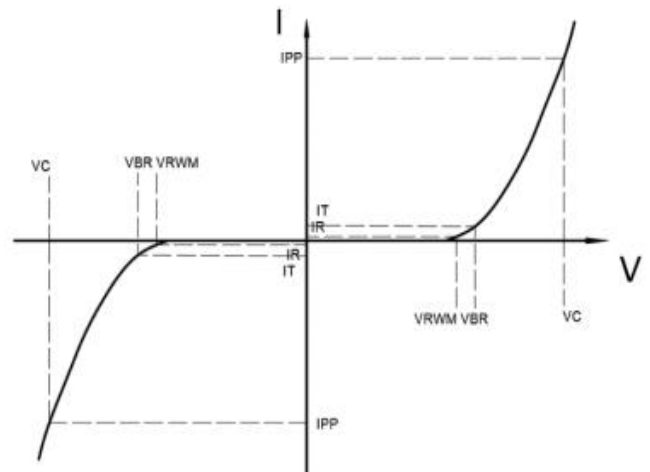
Characteristic 特性参数	Symbol 符号	Rat 额定值	Unit 单位
ESD (IEC61000-4-2 contact discharge)@25°C接触放电	V_{ESD}	± 23	KV
ESD (IEC61000-4-2 air discharge) @25°C空气放电	V_{ESD}	± 25	KV
Peak Pulse Current @25°C峰值脉冲电流 pin 1 to 2	I_{PP}	5	A
Peak Pulse Current @25°C峰值脉冲电流 pin 2 to 1	I_{PP}	4	A
Peak Pulse Power @25°C峰值脉冲功率	P_{PK}	188	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**

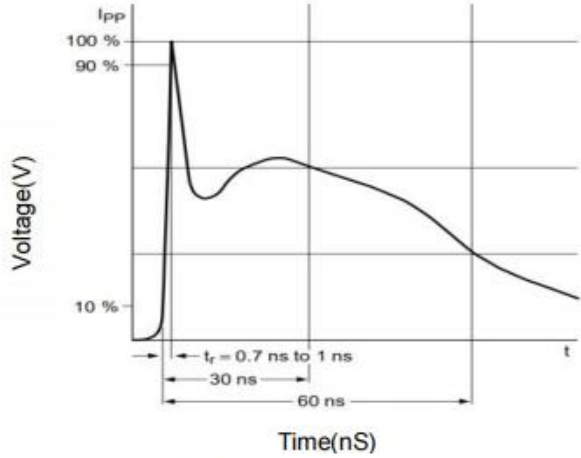
($T_A=25^\circ\text{C}$ unless otherwise noted 如无特殊说明, 温度为 25°C)

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}			15	V	pin 1 to 2
				24	V	pin 2 to 1
Reverse Breakdown Voltage 反向击穿电压	$V_{R(BR)}$	17.5	18.5	19.5	V	pin 1 to 2, $I_T=1\text{mA}$
		26.5	28.5	29.5	V	pin 2 to 1, $I_T=1\text{mA}$
Reverse Leakage Current 反向漏电流	I_R			0.05	μA	pin 1 to 2, $V_R=15\text{V}$
				0.05	μA	pin 2 to 1, $V_R=24\text{V}$
Clamping Voltage 钳位电压	V_C		25	27	V	pin 1 to 2 $I_{PP}=5\text{A}, t_p=8/20\mu\text{s}$
			45	47	V	pin 2 to 1 $I_{PP}=4\text{A}, t_p=8/20\mu\text{s}$
Junction Capacitance 结电容	C_J		10	15	pF	$V_R=0\text{V}, f=1\text{MHz}$

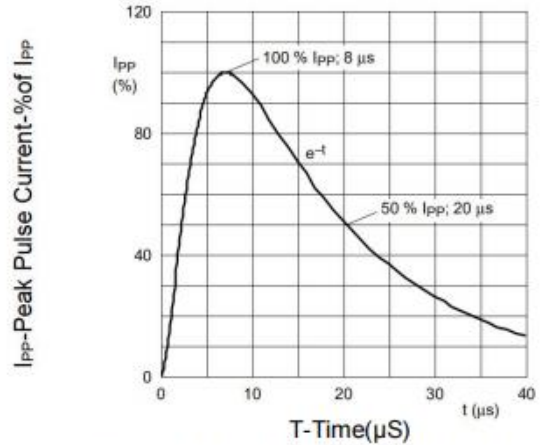
Symbol	Parameters
V_{RWM}	Peak Reverse Working Voltage
I_R	Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current
I_{PP}	Maximum Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
I_F	Forward Current
V_F	Forward Voltage @ I_F



■ Typical Characteristic Curve 典型特性曲线

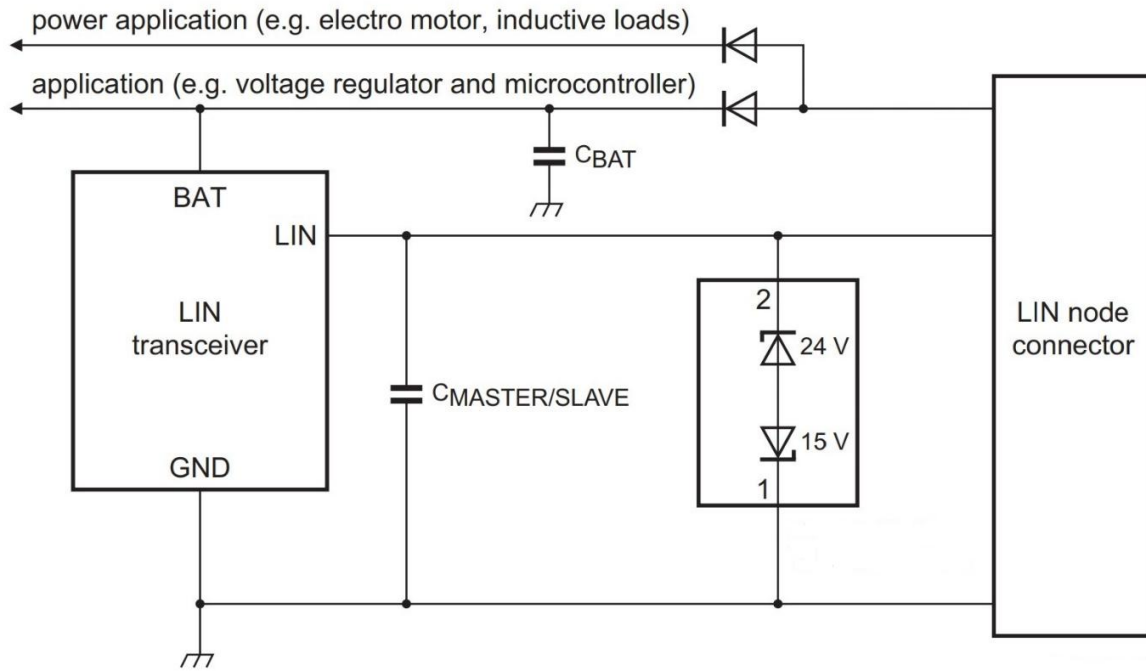


IEC61000-4-2 Pulse Waveform

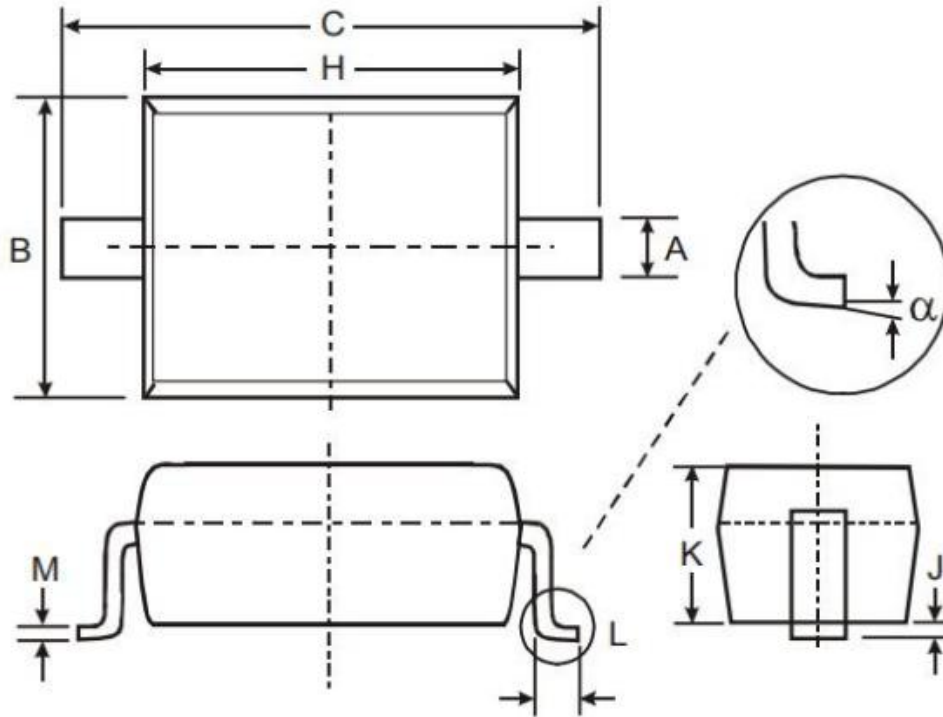


IEC61000-4-5 8X20μS Pulse Waveform

■ Typical Application 典型应用



■ Dimension 外形封装尺寸



SYMBOL	DIMENSIONS	
	MIN	MAX
A	0.25	0.40
B	1.20	1.40
C	2.35	2.75
H	1.50	1.80
J	0.01	0.15
K	0.75	1.05
L	0.20	0.40
M	0.08	0.25
α	0°	8°