2SA230J

半导体放电管

版本号
201603-A

产品概述

半导体放电管是一种过压保护器件，是利用晶闸管原理制成的，依靠PN结的击穿电流触发器件导通放电，可以流过很大的浪涌电流或脉冲电流。

产品特点

- ●双向过电压电路保护
- ●抗浪涌能力强
- ●快速反应，可恢复
- ●漏电小，可靠性高
- ●低电容

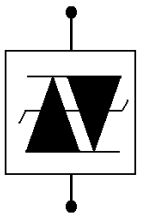
应用领域

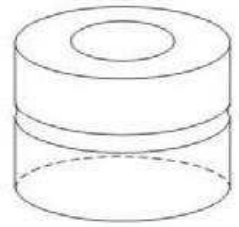
SA系列半导体放电管主要应用于通讯设备的过电压防护；家用电器，工控仪器的过电压防护。

特征参数

符 号	额定值	单 位
V_{DRM}	190	V
V_S	260	V
I_H	150	mA

封装：纽扣式封装





电参数

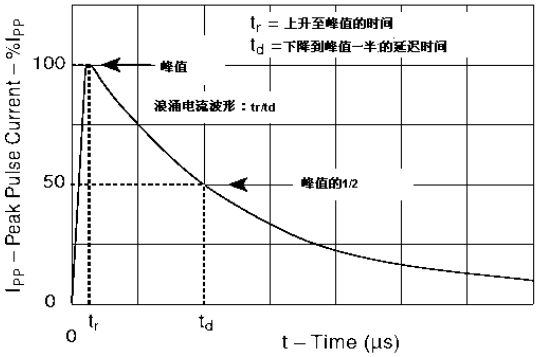
参数名称	符号	测试条件	规范值			单位
			最小	典型	最大	
不动作电压	V_{DRM}	I=5μA	190			V
不动作电流	I_{DRM}	V=V_{DRM}额定值			5	μA
跃变电压	V_S	100KV/s			260	V
跃变电流	I_S	100KV/s			800	mA
维持电流	I_H	10A，10/1000μs	150			mA
通态电压	V_T	I_T =2.2A			4	V
通态电流	I_T	额定值		2.2		A
极间电容	C_o	1MHz，2V偏置			200	pF
峰值浪涌电流	I_{PP}	10/1000μs			100	A

■ 热特性

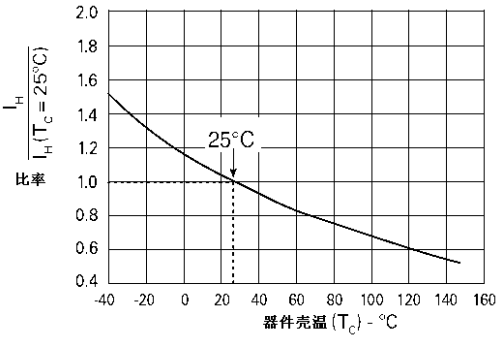
符号	参数	数值	单位
T_J	工作结温范围	-40～+150	℃
T_S	贮存温度范围	-65～+150	℃

典型特性曲线

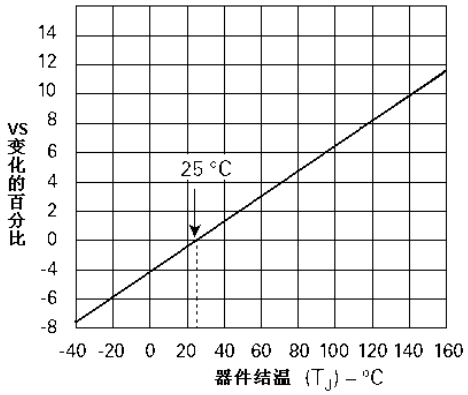
浪涌电流波形



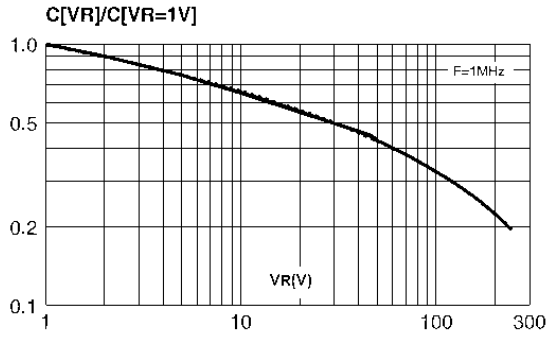
I_H 随温度变化率



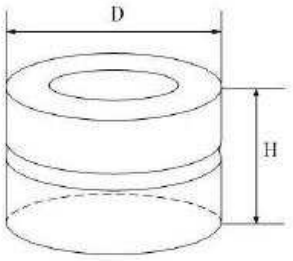
V_S随结温变化率



Co随偏置电压的变化率（相对于V_R=1V）



封装尺寸



外形规格	直径 D（mm）	高度 H（mm）
4×2	4±0.1	2±0.1
4×3	4±0.1	3±0.1
4.7×2.9	4.7±0.1	2.9±0.1
5.5×4	5.5±0.1	4±0.1
5.5×6	5.5±0.1	6±0.1

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Description

The SDT is a kind of overvoltage protection device.It is designed at the PNPN structure.High pulse current can cross SDT.

Features and Benefits

- Low voltage and overshoot
- Low on-state voltage
- Does not degrade with use
- Fails short circuit when surged in excess of ratings
- Low capacitance

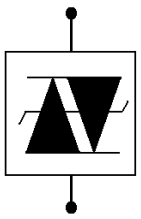
Application field

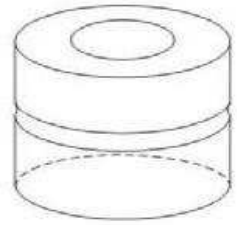
2SA230J are designed to protect communication equipment , appliances and Industrial And Control Instrumentation Equipment from damaging overvoltage transients.

Characteristic parameters

symbol	Rated value	unit
V_{DRM}	190	V
V_S	260	V
I_H	150	mA

Package： Button type package





Electrical Parameters

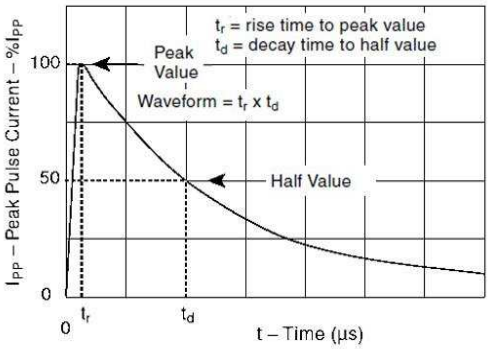
Parameter	symbol	Test conditions	Value			unit
			Min.	Typ.	Max.	
Leakage Voltage	V_{DRM}	I=5μA	190			V
Leakage Current	I_{DRM}	$V=V_{DRM}$			5	μA
Switching Voltage	V_S	100KV/s			260	V
Switching Current	I_S	100KV/s			800	mA
Holding Current	I_H	10A，10/1000μs	150			mA
On-state Voltage	V_T	I_T =2.2A			4	V
On-state Current	I_T	Rating value		2.2		A
Off-state	C_o	1MHz，2V offset			200	pF
Peak Pulse Current	I_{PP}	10/1000μs			100	A

■ Thermal Characteristics

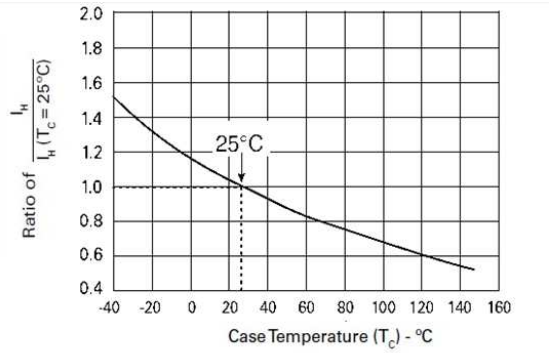
Symbol	Parameter	Value	Unit
T_J	Operating Junction Temperature	-40～+150	℃
T_S	Storage Temperature Range	-65～+150	℃

Typical characteristic curv

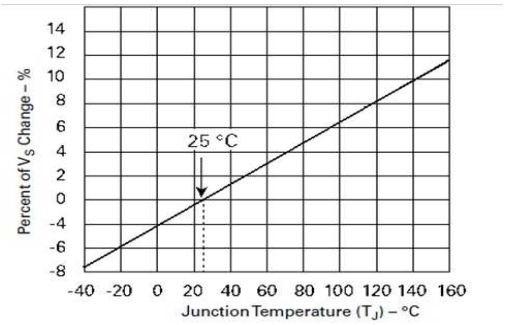
Tr x Td Pulse waveform



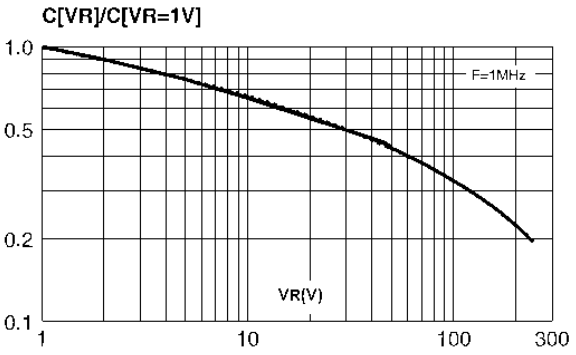
Normalized DC holding current vs. case temperature



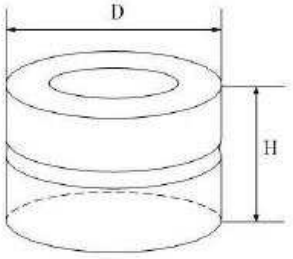
Vs change vs. junction temperature



Co change vs. bias voltage （V_R=1V）



封装尺寸



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5.5×4	5.5±0.1	4±0.1
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