



1.产品介绍

HCC6201是一款低功耗高灵敏全极性霍尔开关芯片，采用CMOS工艺设计生产。该芯片器件内部集成了电压调节器、霍尔电压发生器、小信号放大器、斩波稳压器、施密特触发器和CMOS输出驱动器。该芯片温度稳定性好、抗应力强、灵敏度高等特点，工作电压在2.5V-5.5V。提供TO-92S直插封装，贴片SOT-23封装，且封装都符合RoHS环保标准。

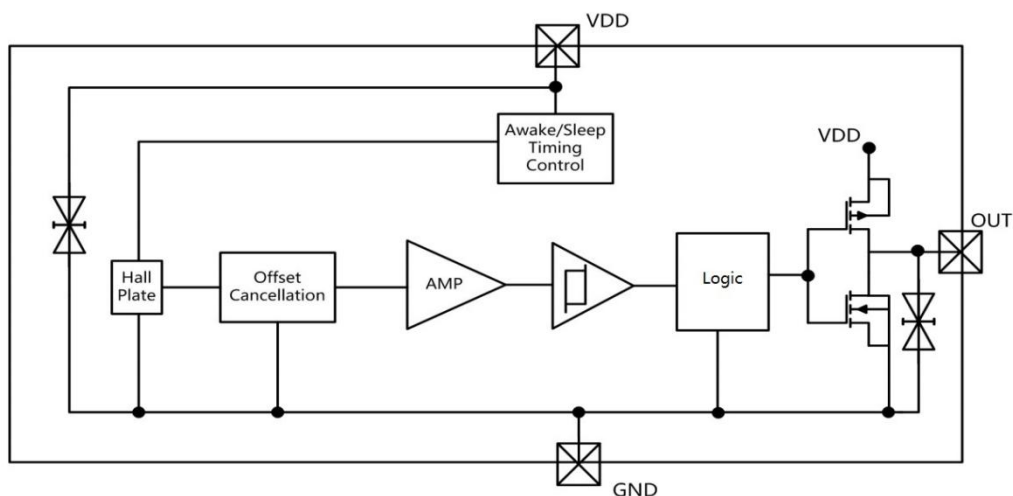
2.特点

- 推挽输出
- ESD 性能可达： $\pm 6\text{kV}$
- 工作电压：2.5V-5.5V
- 微功耗电池供电应用
- 全极性的输出开关

3.应用

- 固态开关
- 无绳手机提醒开关
- 翻盖式手机屏保开关
- 笔记本电脑
- 低占空比替代簧片的磁传感开关
- 液位计
- 接近开关

4.功能图

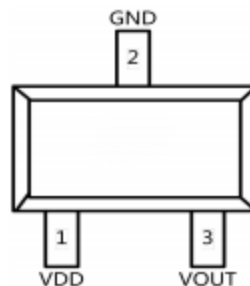
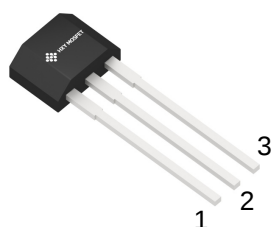




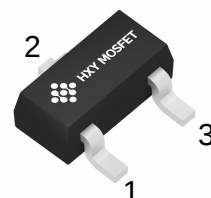
5.引脚信息



TO-92S

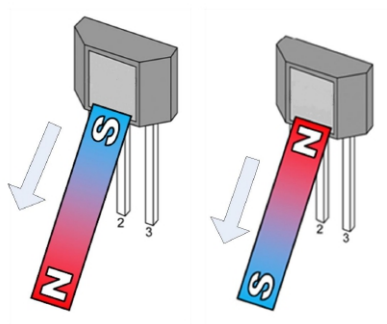


SOT-23



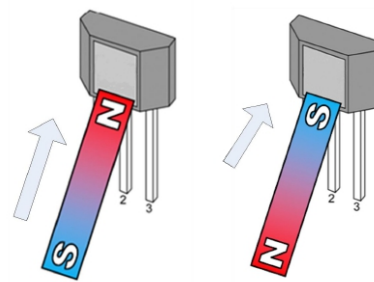
名称	芯片引脚	描述
VDD	1	电源
Vout	2	输出
GND	3	地

6.应用实例：

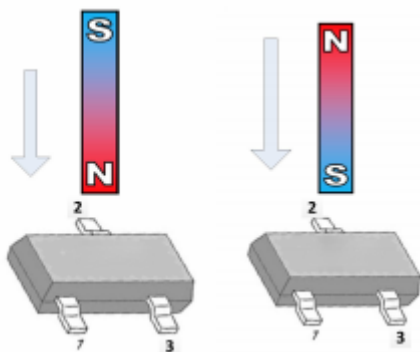


VOUT= 高电平

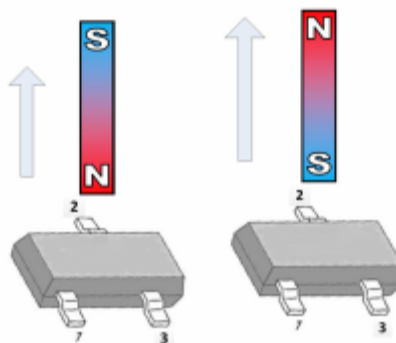
TO-92S



VOUT= 低电平



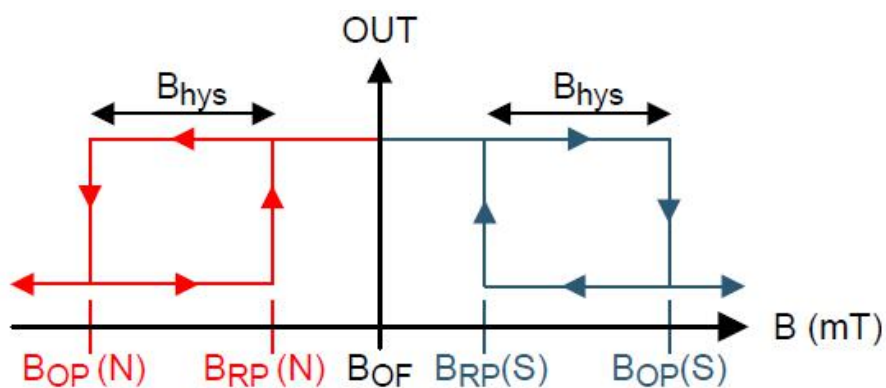
VOUT= 低电平



VOUT= 高电平

SOT-23

7.输出状态图



8. 订购信息

编号	封装	包装	温度范围
HCC6201TO	TO-92S	1000/袋	-0°C ~ 70°C
HCC6201ST	SOT-23	3000/卷	-0°C ~ 70°C



9.极限参数

参数	符号	数值	单元
电源电压	VDD	6.0	V
反向电压	VDD	-0.3	V
输出电流	IOUT	5	mA
输出电压	VOUT	6.0	V
工作温度范围	Ta	-40~85	°C
储存温度范围	Ts	-50~150	°C

绝对最大额定值是芯片所能承受的极限值，超过该值芯片可能会永久损坏。

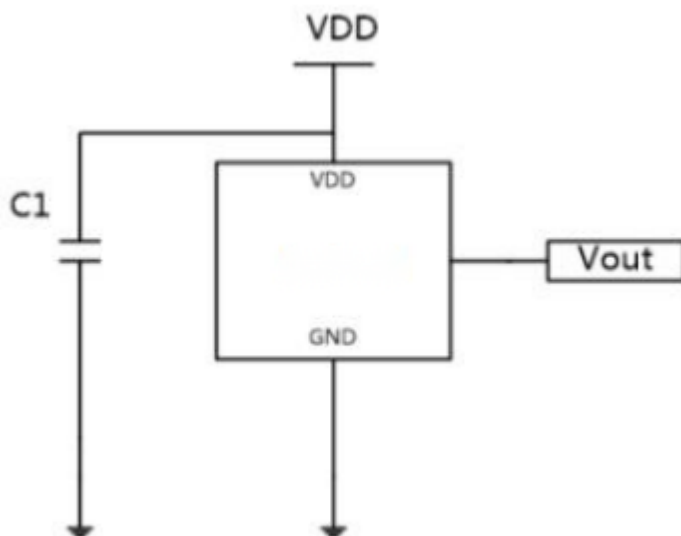
10.电磁特性 (Ta =25°C , VDD = 3.0V)

参数	符号	测试条件	最小	典型	最大	单位
电特性						
工作电压	VDD		2.5		5.5	V
输出低电压	VOL	IOUT=1mA			0.2	V
输出高电压	VOH	IOUT=-1mA	VDD-0.2			V
输出电流	IOUT	输出低电压时			3.0	mA
		输出高电压时	-2.0			mA
工作电流	Iawk	唤醒时		2.8		mA
电源平均电流	IDD			50	100	uA
唤醒模式时间	Tawk			50	80	us
休眠模式时间	Tp			3.1	4.6	ms
工作频率	Fw		220	320		Hz
响应频率	Fr		110	160		Hz
参数	符号	测试条件	最小	典型	最大	单位
磁特性						
工作点	Bop		+/-18	+/-30	+/-42	Gauss
释放点	Brp		+/-8	+/-20	+/-32	Gauss
回差	Bhys	Bop-Brp		10		Gauss



11.应用电路

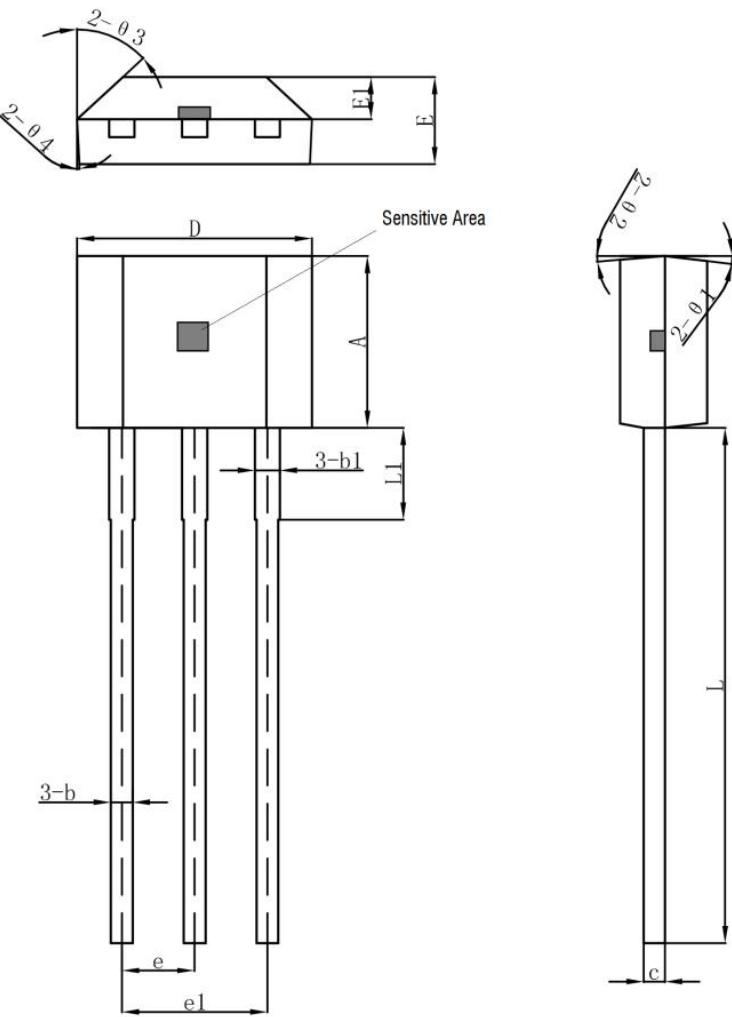
$C1=2.2\mu F$



典型应用电路



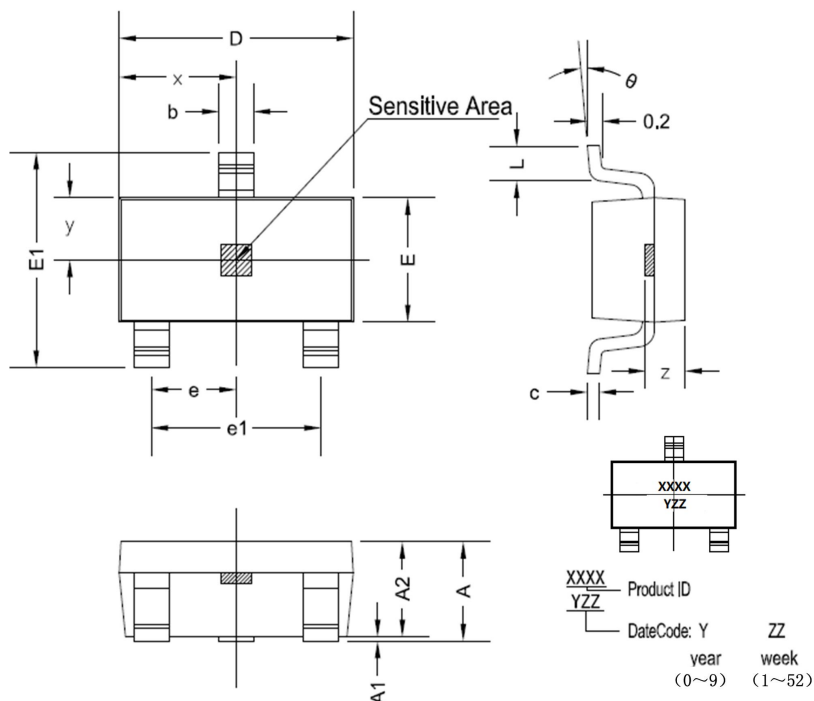
12.外形尺寸
TO-92S 封装尺寸



符号	机械尺寸/mm		
	最小	典型	最大
A	2.90	3.00	3.10
b	0.35	0.39	0.40
b1		0.44	
c	0.36	0.38	0.40
D	4.00	4.10	4.20
E	1.42	1.52	1.62
E1		0.75	
e		1.27	
e1		1.27	
L1		2.54	
L	13.50	14.50	15.50
θ1		6°	
θ2		3°	
θ3		45°	
θ4		3°	
h		3.6	



SOT-23 封装尺寸



符号	尺寸 (毫米)		尺寸 (英尺)	
	最小值	最大值	最小值	最大值
A	1.05	1.25	0.041	0.049
A1	0	0.1	0	0.004
A2	1.05	1.15	0.041	0.045
b	0.3	0.5	0.012	0.02
c	0.100	0.2	0.004	0.008
D	2.82	3.02	0.111	0.119
E	1.5	1.7	0.059	0.067
E1	2.65	2.95	0.104	0.116
e	0.950 TYP		0.037 TYP	
e1	1.8	2	0.071	0.079
L	0.3	0.6	0.012	0.024
x	1.460TYP		0.057TYP	
y	0.800TYP		0.032TYP	
z	0.600TYP		0.024TYP	
θ	0°	8°	0°	8°



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