

文件号: SR

版本号: A0



# 萨瑞微电子 产品应用手册

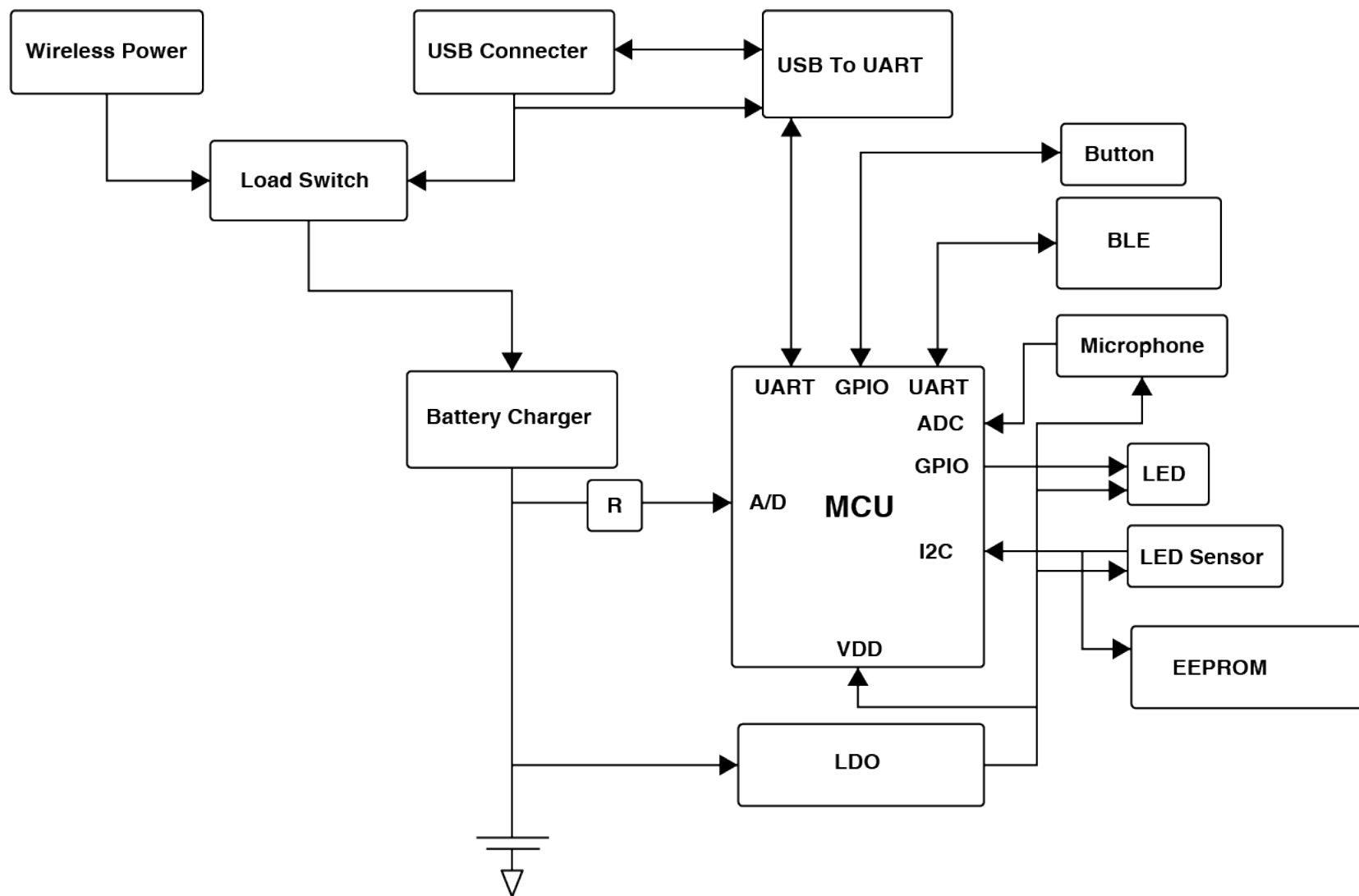
SALLTECH PRODUCTS  
APPLICATION

# 电子笔 行业应用方案

ELECTRONIC PEN PRODUCTS  
APPLICATION









## 电子笔

### TVS/ESD

Type-C/磁吸充电PIN:  
**SES2411P4**

USB信号(检测):  
**SEL0501P1**

电池Vbat:  
**SES4501D3**  
**SEP4501P4**

天线ANT:  
**SEU0501P0-C**

IC复位:  
**SEL0521P0**

### OVP

**SROV3605A**

### MOS

**SR34K**  
**SR39K**  
**SR3139KS9**  
**SR3134KS9**  
**SR3401**  
**SR150PE2**



### ESD

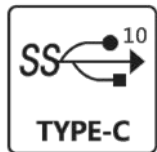
MIC:  
**SEL0521P0**

Speak:  
**SEL0521P0**

按键KEY:  
**SEL0521P0**

### SBD

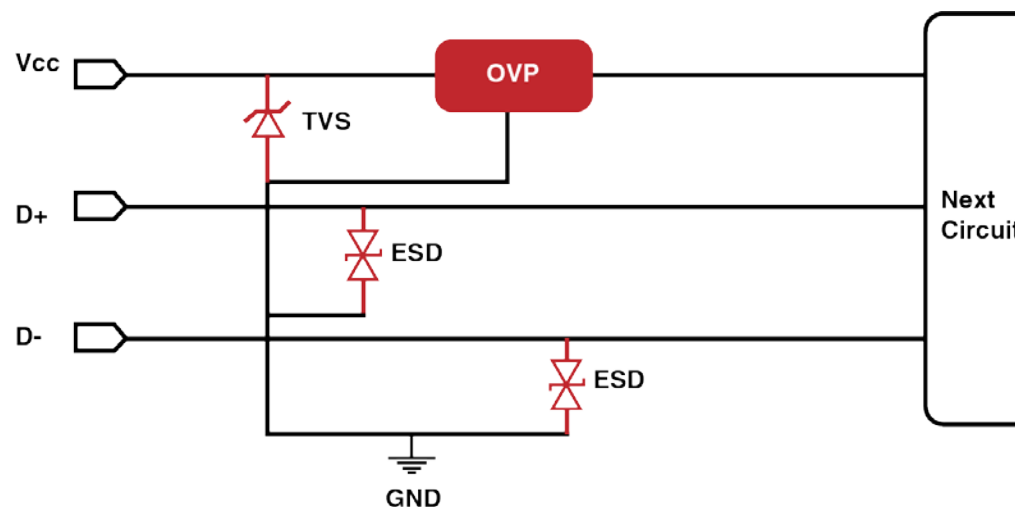
**SRDS521Y-30**  
**SRDS521-30**



## ■ 电子笔充电端口静电浪涌防护方案

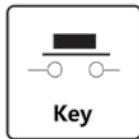
IEC 61000-4-2:  
±15KV(Air), ±8KV(Contact)

IEC 61000-4-5:  
±200V (1.2/50µs & 8/20µs)



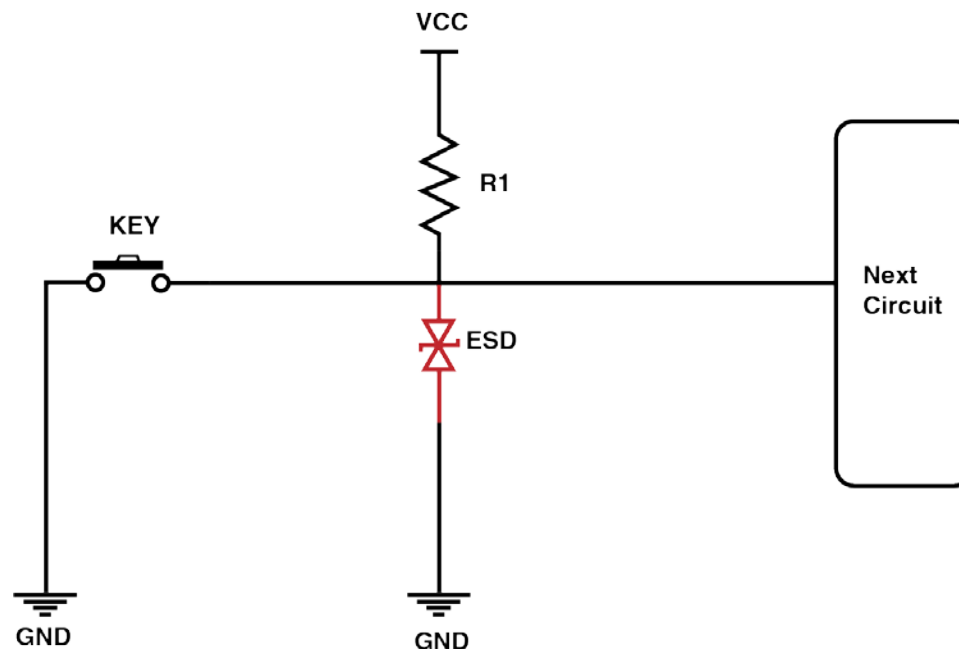
Outline	P/N	package	Vrwm	Cj	Ir	IPP	Vc	Ppk
TVS	SES2411P4	DFN2020-3L	24V	850pF	1µA	150A	40V	7500W
ESD	SEL0501P1	DFN1006-2L	5V	12pF	0.1µA	8A	12V	95W

Outline	P/N	package	Vmax	VIN_ovLo	I <sub>OUT</sub>	OVP	R <sub>DS_ON</sub>
OVP	SROV3605A	DFN2020-6L	32V	6V	4A	4 ~ 20V Adj	30mΩ

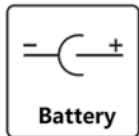


## ■ 电子笔按键处静电防护方案

IEC 61000-4-2:  
 $\pm 15\text{KV(Air)}$ ,  $\pm 8\text{KV(Contact)}$

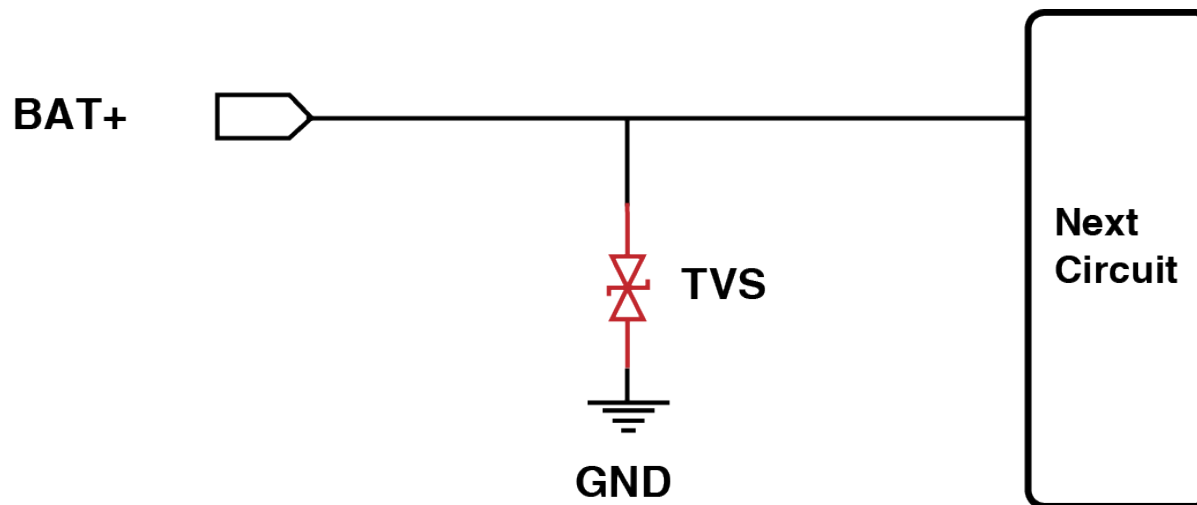


Outline	P/N	package	Vrwm	Cj	Ir	IPP	Vc	Ppk
ESD	SEL0501P1	DFN1006-2L	5V	12pF	0.1 $\mu$ A	8A	12V	95W



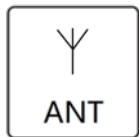
## ■ 电子笔电池供电端静电防护方案

IEC 61000-4-2:  
±15KV(Air), ±8KV(Contact)



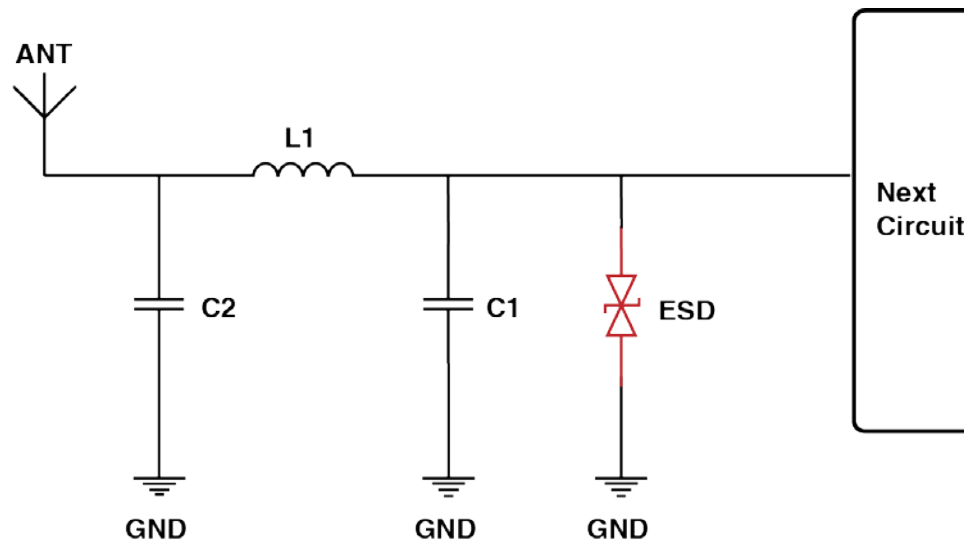
Outline	P/N	package	Vrwm	Cj	Ir	IPP	Vc	Ppk
TVS	SES4501D3	SOD323	4.5V	450pF	0.1μA	160A	16.5V	2640W
TVS	SEP4501P4	DFN2020-3L	4.5V	480pF	0.2μA	160A	18V	2880W



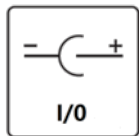


## ■ 电子笔天线ANT静电防护方案

IEC 61000-4-2:  
±15KV(Air), ±8KV(Contact)

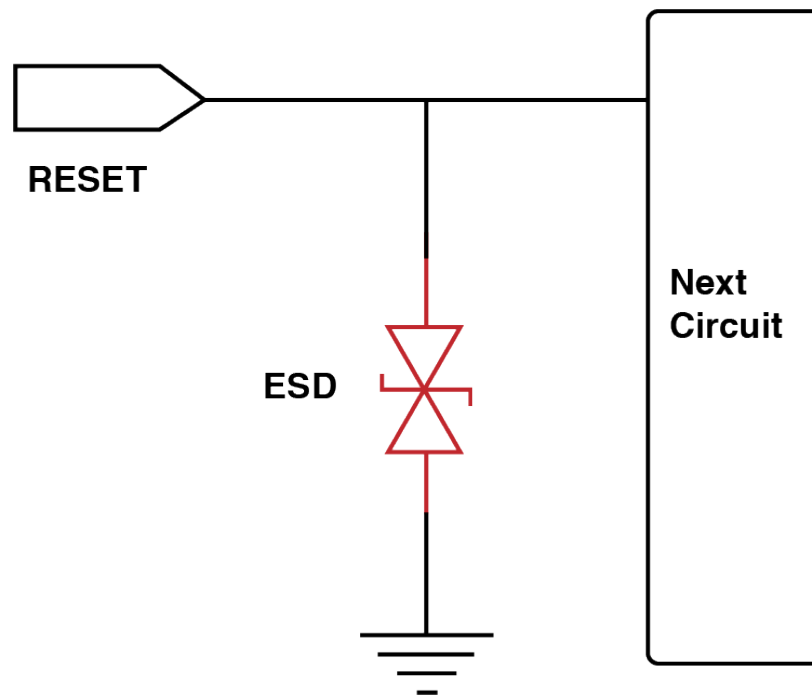


Outline	P/N	package	Vrwm	Cj	Ir	IPP	Vc	Ppk
ESD	SEU0501P0-C	DFN0603-2L	5V	0.2pF	0.1μA	4A	25V	100W



## ■ 电子笔复位位置静电防护方案

IEC 61000-4-2:  
 $\pm 15\text{KV(Air)}$ ,  $\pm 8\text{KV(Contact)}$

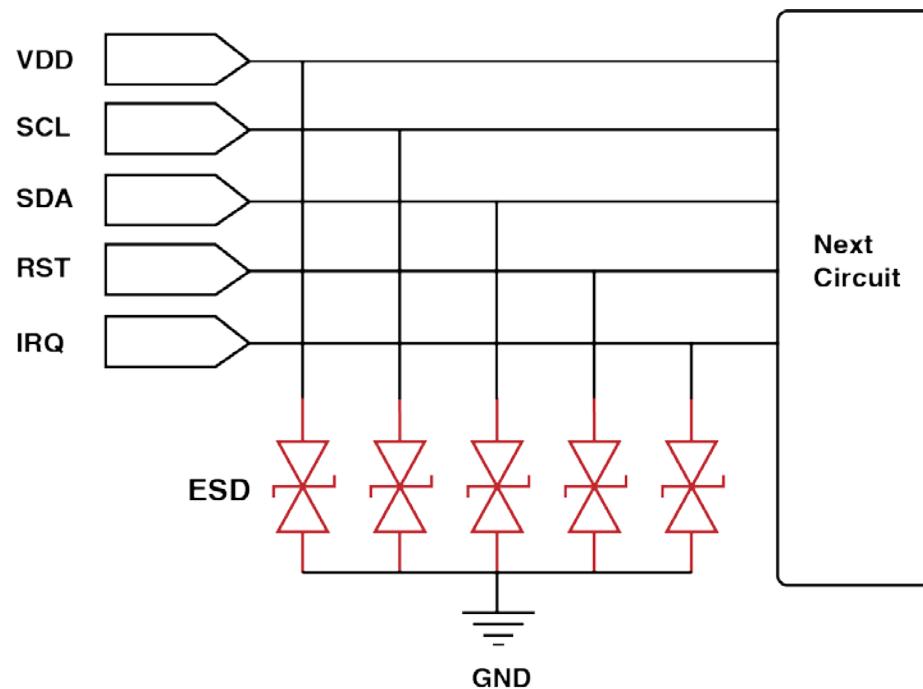


Outline	P/N	package	Vrwm	Cj	Ir	IPP	Vc	Ppk
ESD	SEL0521P0	DFN0603-2L	5V	12pF	0.2 $\mu$ A	8A	15V	120W



## ■ 电子笔触控IC静电防护方案

IEC 61000-4-2:  
 $\pm 15\text{KV(Air)}$ ,  $\pm 8\text{KV(Contact)}$

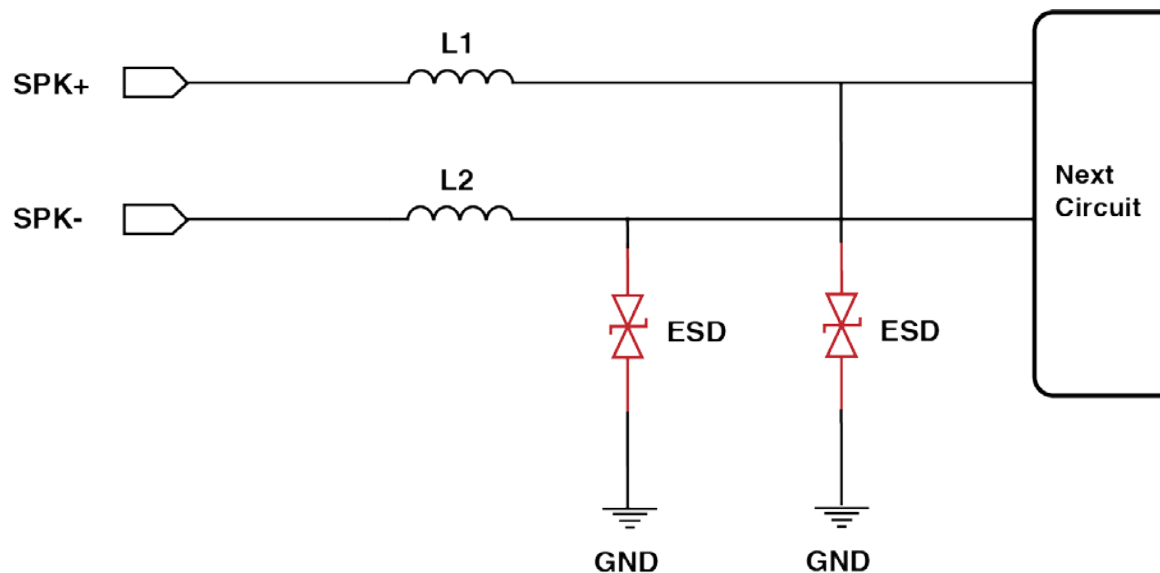


Outline	P/N	package	Vrwm	Cj	Ir	IPP	Vc	Ppk
ESD	SEL0521P0	DFN0603-2L	5V	12pF	0.2 $\mu$ A	8A	15V	120W

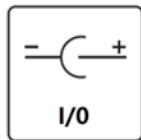


## ■ 电子笔SPK静电防护方案

IEC 61000-4-2:  
±15KV(Air), ±8KV(Contact)

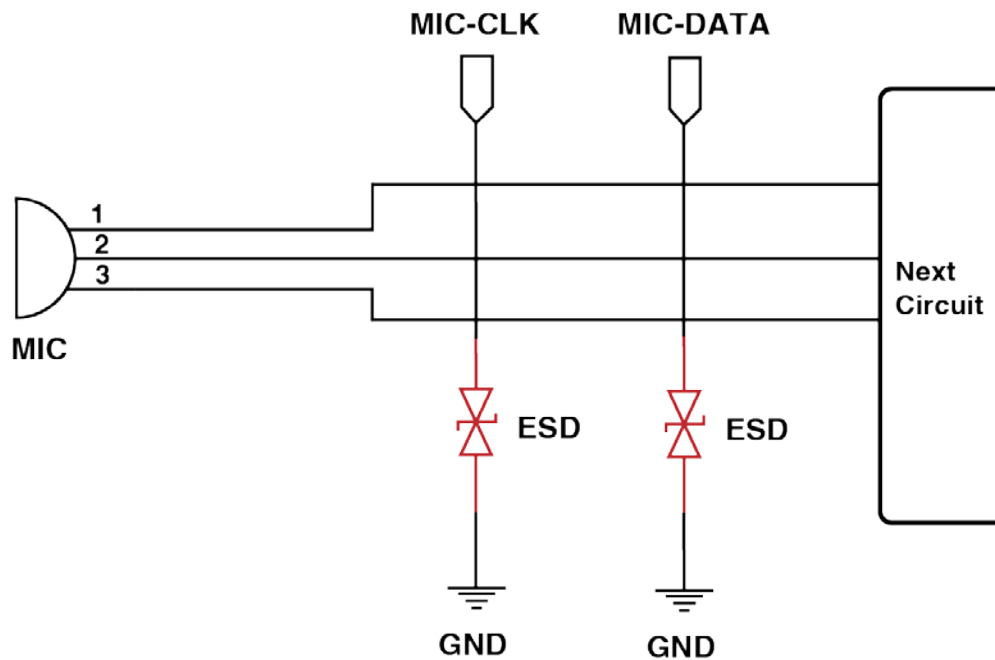


Outline	P/N	package	Vrwm	Cj	Ir	IPP	Vc	Ppk
ESD	SEL0521P0	DFN0603-2L	5V	12pF	0.2μA	8A	15V	120W

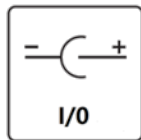


## 电子笔MIC静电浪涌防护方案

IEC 61000-4-2:  
±15KV(Air), ±8KV(Contact)

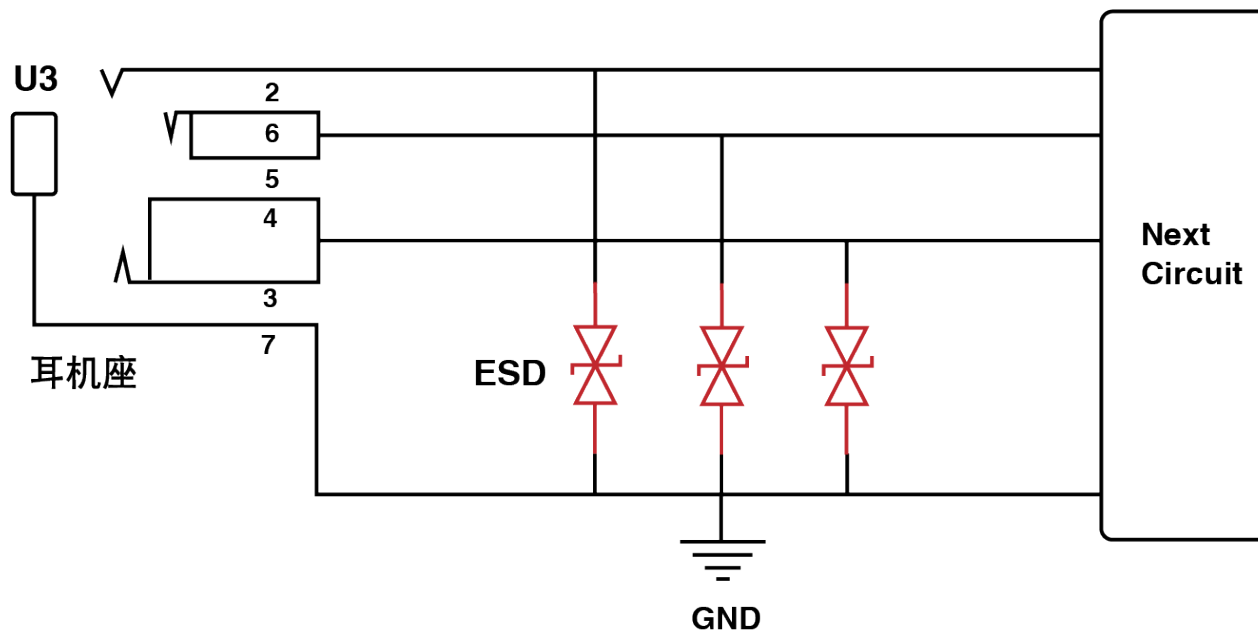


Outline	P/N	package	Vrwm	Cj	Ir	IPP	Vc	Ppk
ESD	SEL0521P0	DFN0603-2L	5V	12pF	0.2μA	8A	15V	120W

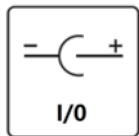


## ■ 电子笔3.5mm Jack静电防护方案

IEC 61000-4-2:  
±15KV(Air), ±8KV(Contact)

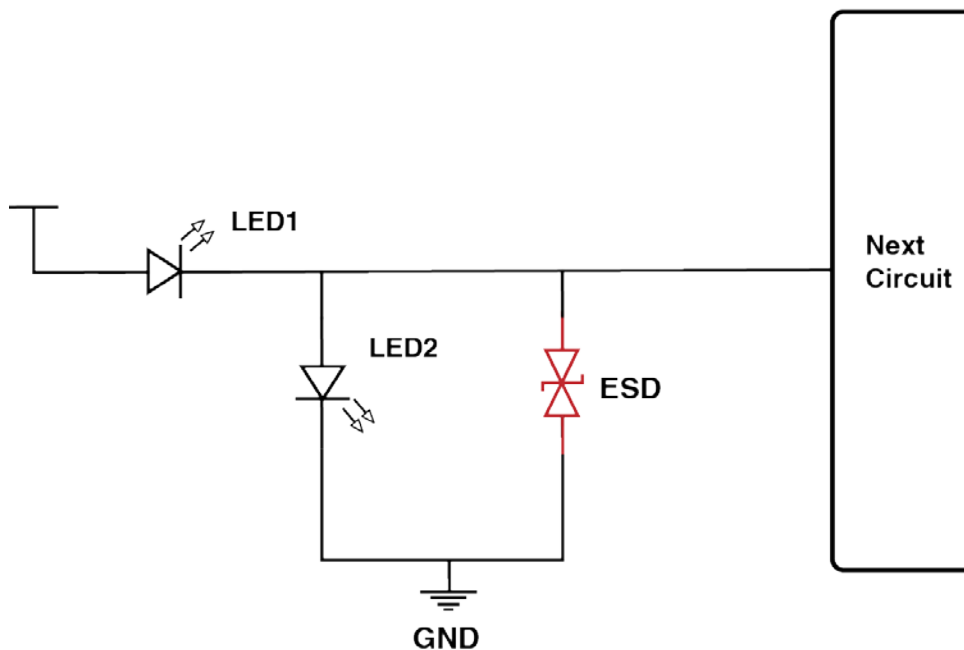


Outline	P/N	package	Vrwm	Cj	Ir	IPP	Vc	Ppk
ESD	SEL0521P0	DFN0603-2L	5V	12pF	0.2μA	8A	15V	120W



## ■ 电子笔RGB静电防护方案

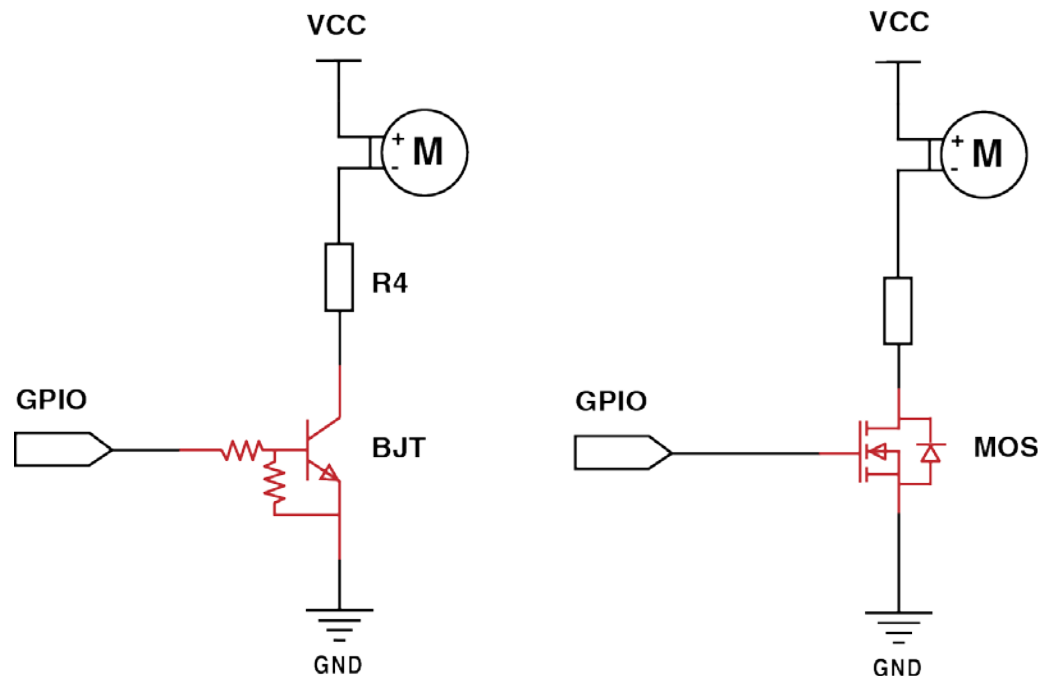
IEC 61000-4-2:  
±15KV(Air), ±8KV(Contact)



Outline	P/N	package	Vrwm	Cj	Ir	IPP	Vc	Ppk
ESD	SEL0501P1	DFN1006-2L	5V	12pF	0.1μA	8A	12V	95W



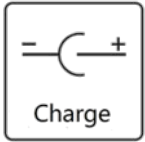
## ■ 电子笔马达应用电路



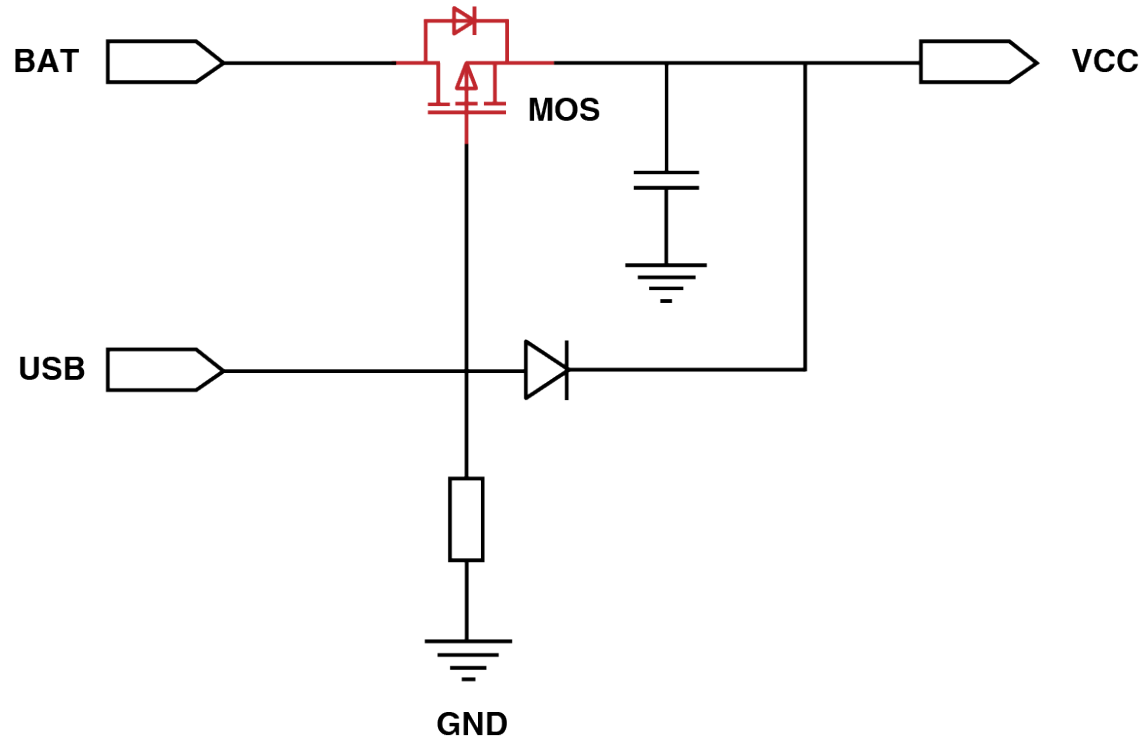
Outline	P/N	package	V <sub>in</sub>	I <sub>c</sub>	h <sub>EF</sub>	R1	R2/R1
Digital Transistors	DTC143P1	DFN1006-3L	-5V ~ +30V	100mA	80	4.7KΩ	47KΩ

Outline	P/N	package	V <sub>DS</sub>	V <sub>GS</sub>	I <sub>D</sub>	R <sub>DS(ON)</sub>	V <sub>TH</sub>
MOS	SR34K	DFN1006-3L	20V	±12V	0.75A	250mΩ	0.35 ~ 1.1V

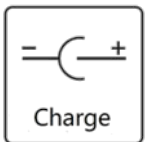




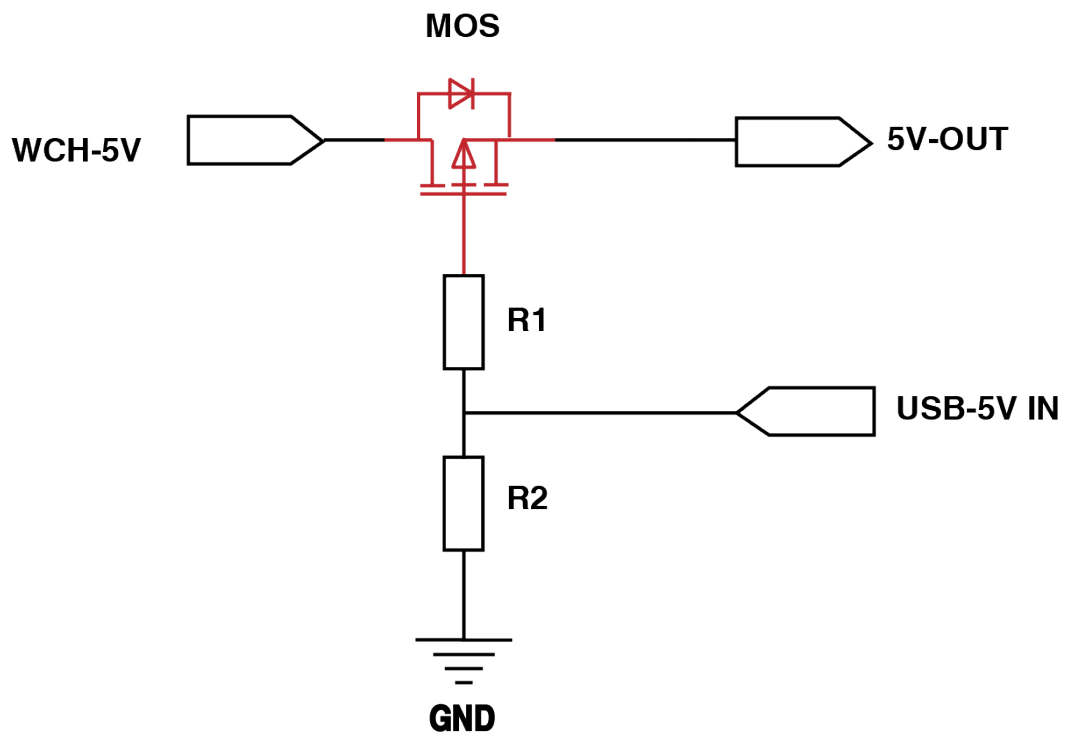
## ■ 电子笔USB与电池供电切换电路



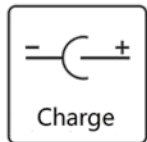
Outline	P/N	package	$V_{DS}$	$V_{GS}$	$I_D$	$R_{DS(on)}$	$V_{TH}$
MOS	SR3401	SOT23	-30V	$\pm 12V$	-4.2A	48m $\Omega$	-0.7 ~ -1.3V
MOS	SR150PE2	SOT23	-25V	$\pm 20V$	-6.8A	28m $\Omega$	-0.7 ~ -1.3V



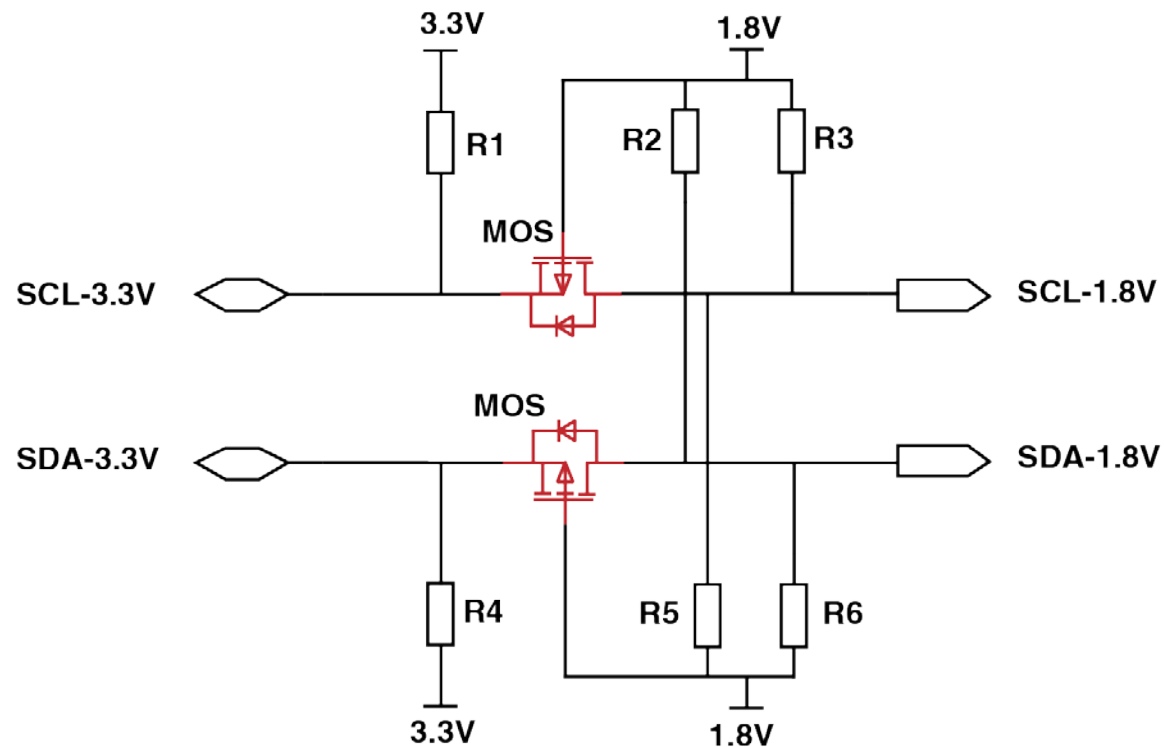
## ■ 电子笔中无线充IC输出端防护



Outline	P/N	package	$V_{DS}$	$V_{GS}$	$I_D$	$R_{DS(ON)}$	$V_{TH}$
MOS	SR3401	SOT23	-30V	±12V	-4.2A	48mΩ	-0.7 ~ -1.3V



## ■ I2C通讯&电平转换电路



Outline	P/N	package	$V_{DS}$	$V_{GS}$	$I_D$	$R_{DS(on)}$	$V_{TH}$
MOS	SR2N7002KS9	SOT723	60V	$\pm 20V$	0.34A	$2\Omega$	1 ~ 2V
MOS	SR34K	DFN1006-3L	20V	$\pm 12V$	0.75A	250m $\Omega$	0.35 ~ 1.1V

## 发展历程

2014年，成立上海萨锐微电子

2017年，成立江西萨瑞微电子

2020年，成立江西萨瑞半导体

## 封装类型

DFN、QFN、PDFN、SOD、  
SOT、TO、SMA、SMB、  
SMC、SMAF, SMBF, DO-  
218AB等



## 产品类别

保护器件：ESD、TSS、TVS

标准器件：肖特基，稳压管，整流桥，开关管，快恢复等二三极管

功率器件：MOSFET

模拟IC：LDO, OVP, 电源管理IC

## 企业规模

职工人数：400人

厂房面积：35000m<sup>2</sup>

芯片产能：5万片/M

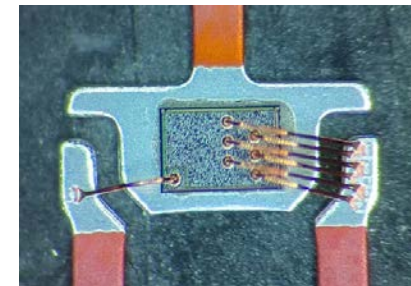
封装产能：1500KK/M



芯片设计



芯片制造



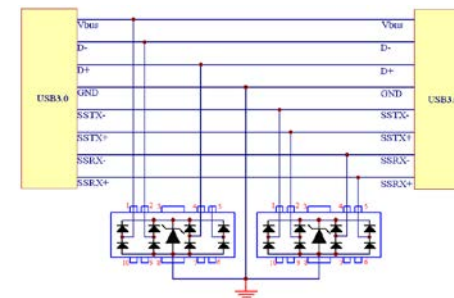
封装测试



代工服务



定制服务



方案设计

企业愿景：成为国内领先的功率半导体与保护器件IDM公司



谢谢  
观看