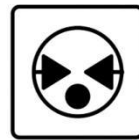# MSKSEMI
SEMICONDUCTOR

| ESD | TVS | TSS | MOV | GDT | PLED |

Product data sheet

产品简介

　　MAX810系列是一款具有电压检测功能的微处理器复位芯片,用于监控微控制器或其他逻辑系统的电源电压。它可以在上电掉电和节电情况下, 向微控制器提供复位信号。当电源电压低于预设的检测电压时,器件会发出复位信号,直到电源电压又恢复到高于检测电压为止。

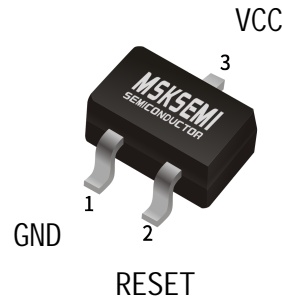　　MAX810系列芯片当输入电压低于检测电压时,$V_{\overline{RESET}}$输出为高电平,应用简单,无需外部器件。

产品特点

- 低功耗：2uA（典型值）
- 宽工作电压范围： 1V~6.0V
- 具有 VCC 瞬态抗干扰
- 无需外部元件

- 内置复位延时时间 500ms（典型值）
- 高精度复位电压值：±2.5％
- 输入电压高于检测电压时， V_{RESET}输出为低电平
- 小体积封装： SOT-23-3

产品用途

- 电池供电设备
- 无线通讯系统
- 电脑、微机处理器

- PAD和手持设备
- 嵌入式系统

封装形式和管脚定义功能

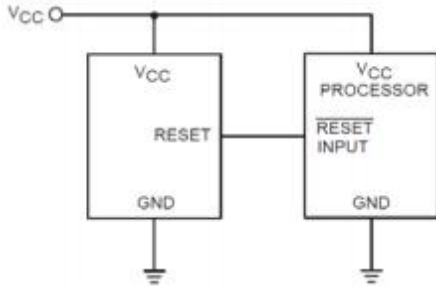| 管脚序号 SOT23	管脚定义	功能说明
1	GND	芯片接地端
3	VCC	芯片输入端
2	$\overline{RESET}$	芯片输出端

型号选择

名称	型号	最高输入电压(V)	复位电压(Vth)V	容差	封装形式
MAX810* *=VTH	MAX810L	6.0	4.63	±2.5%	SOT-23-3
	MAX810M	6.0	4.38	±2.5%	
	MAX810T	6.0	3.08	±2.5%	
	MAX810S	6.0	2.93	±2.5%	
	MAX810R	6.0	2.63	±2.5%	
	MAX810Z	6.0	2.32	±2.5%	

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应用电路

上电复位时间
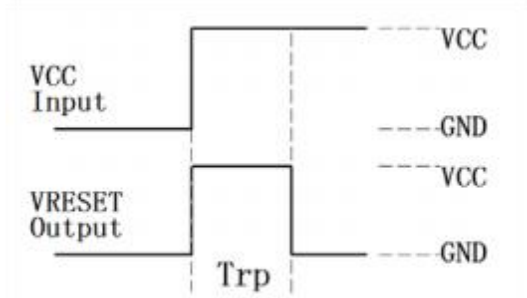
极限参数

| 项目	符号	说明	极限值	单位
电压	V_{CC}	输入电压	6.5	V
	V_{RESET}	复位输出电压	-0.3~ $V_{CC}+0.3$	V
功耗	PD	SOT23	200	mW
温度	Tw	工作温度范围	-20— 60	℃
	Tc	存储温度范围	-50— 125	
	Th	焊接温度	260，10s	℃

注： 极限参数是指无论在任何条件下都不能超过的极限值。万一超过此极限值， 将有可能造成产品劣化等物理性损伤；
同时在接近极限参数下，不能保证芯片可以正常工作。

电学特性

MAX810＊   Ta=25℃

符号	参数	测试条件		最小	典型	最大	单位
V_{CC}	工作电压	-		1.0	-	6.0	V
I_{CC}	静态电流	VCC=5.5V,No Load		-	2	5	uA
V_{th}	检测电压	V_{th}		$V_{th}*97.5\%$	V_{th}	$V_{th}*102.5\%$	V
T_{rd}	复位上升沿时间	VCC=Vth to (Vth－100mV)		-	90		ns
T_{rp}	上电复位时间	MAX10Z/R/S/T, V_{CC}=0 to 3.5V	V_{RESET} = H to L, No Load	85	500	900	ms
		MAX10M/L, V_{CC}=0 to 5.0V					
V_{OL}	复位输出低电压	V_{CC} = Vthmax, I_{SINK}=1.2mA		-	-	0.3	V
V_{OH}	复位输出高电压	1.8V＜V_{CC}＜Vthmin, I_{SOURCE}=150uA		$0.8V_{CC}$			V
$\Delta V_{th}/$ $(V_{th}*\Delta Ta)$	温度系数	$-20℃≤Ta≤60℃$		-	± 200	-	ppm/℃

PACKAGE MECHANICAL DATA
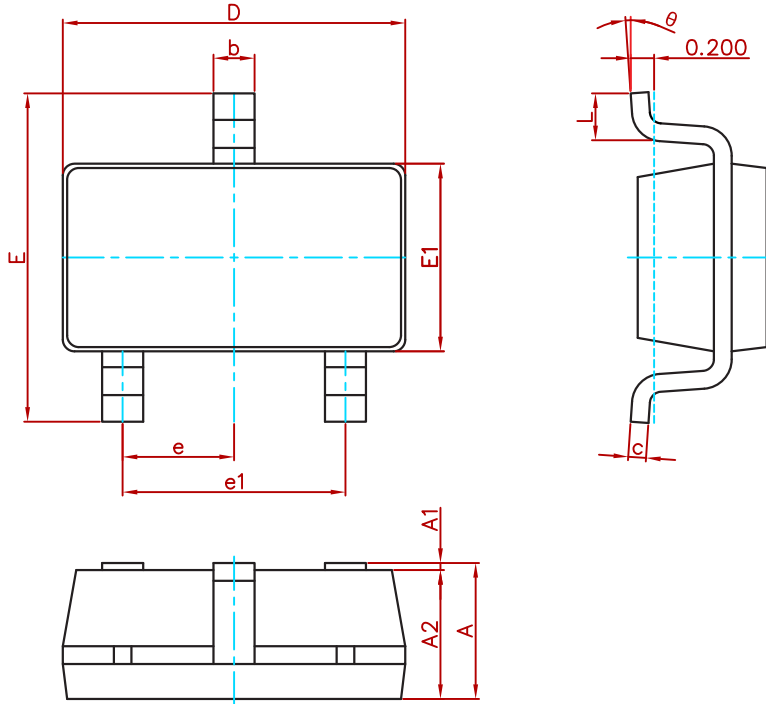
Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.300	0.500	0.012	0.020
c	0.100	0.200	0.004	0.008
D	2.820	3.020	0.111	0.119
E1	1.500	1.700	0.059	0.067
E	2.650	2.950	0.104	0.116
e	0.950(BSC)		0.037(BSC)	
e1	1.800	2.000	0.071	0.079
L	0.300	0.600	0.012	0.024
θ	0°	8°	0°	8°

Suggested Pad Layout
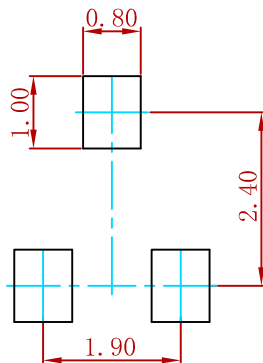
Note:
1.Controlling dimension:in millimeters.
2.General tolerance:± 0.05mm.
3.The pad layout is for reference purposes only.

REEL SPECIFICATION

P/N	PKG	QTY
MAX810	SOT-23-3	3000

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