

# MSKSEMI

SEMICONDUCTOR



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PLED

Product data sheet

## 产品简介

MAX809 系列是一款采用数字系统电路设计技术实现的三端口低电压复位检测监控器，可以对主机处理器提供一个复位监控信号。该系列复位检测监控器能监控 1.0V~5.0V 的固定电压，应用简单， 无需外部器件。

## 产品特点

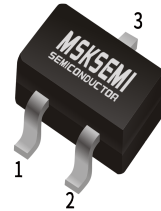
- 低功耗：5.5uA，@VCC=6V（典型值）
- 宽工作电压范围：1V~6.0V
- 具有 VCC 瞬态抗干扰
- 无需外部元件
- 内置复位延时时间 200ms（典型值）
- 高精度复位电压值：±2.5%
- 小体积封装：SOT23-3

## 产品用途

- 电池供电设备
- 掉电检测器
- 电脑、微机处理器
- 非易失性 RAM 信号存储保护器
- 临界 MP 电源监控
- 嵌入式系统

## 封装形式和管脚定义功能

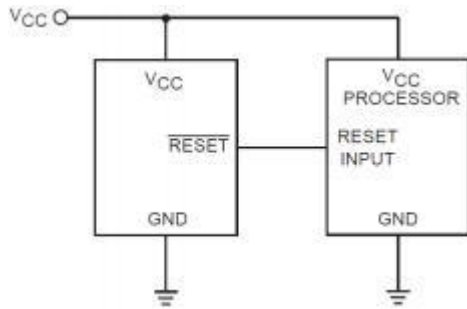
管脚序号	管脚定义	功能说明
SOT23-3		
1	GND	芯片接地端
3	VCC	芯片输入端
2	RESET	复位输出端



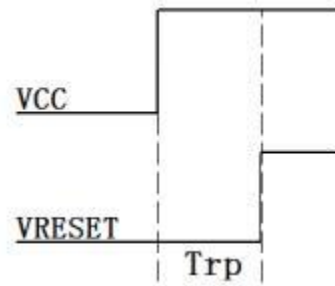
## 型号选择

名称	P/N	最高输入电压 VCC(V)	复位电压 $V_{th(t)}$ (V)	容差	封装形式
MAX809* (*= $V_{TH}$ )	MAX809L	6.0	4.63	±2.5%	SOT23-3
	MAX809M	6.0	4.38	±2.5%	
	MAX809J	6.0	4.00	±2.5%	
	MAX809T	6.0	3.08	±2.5%	
	MAX809S	6.0	2.93	±2.5%	
	MAX809R	6.0	2.63	±2.5%	

## 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 <sub>CC</sub>	输入电压	6.5	V
	V <sub>RESET</sub>	复位输出电压	-0.3 ~ V <sub>CC</sub> +0.3	V
功耗	PD	SOT23-3	200	mW
温度	T <sub>w</sub>	工作温度范围	-50~95	°C
	T <sub>c</sub>	存储温度范围	-55~125	
	T <sub>h</sub>	焊接温度	260	°C, 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。如果超过此极限值，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。

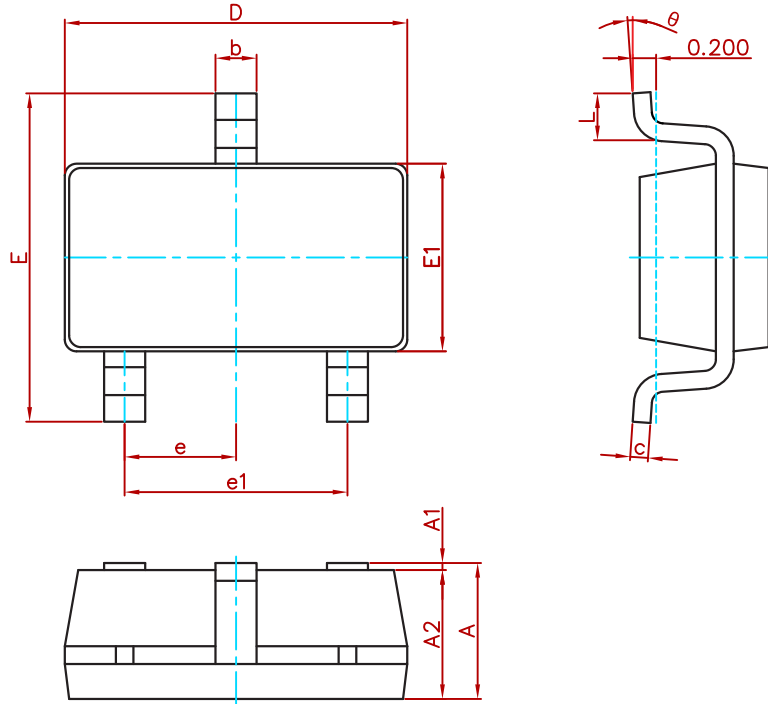
## 电学特性

MAX809 (Ta=25°C, 除非特殊说明)

符号	项目	测试条件	最小值	典型值	最大值	单位
V <sub>CC</sub>	工作电压		1.0	-	6.0	V
I <sub>CC</sub>	静态电流	V <sub>CC</sub> =6V, No Load	-	5.5	-	uA
V <sub>th</sub> <sup>(1)</sup>	复位电压	V <sub>CC</sub> =V <sub>th</sub> +0.5V to V <sub>th</sub> , 空载, V <sub>RESET</sub> =V <sub>CC</sub> to GND	0.975* V <sub>th(E)</sub>	-	1.025* V <sub>th(E)</sub>	V
Trd	下降沿时间	V <sub>CC</sub> = V <sub>th</sub> to (V <sub>th</sub> - 100mV)	-	5	-	us
Trp	上电复位时间	R/S/T V <sub>CC</sub> =0 to 3.5V, 空载	80	-	350	ms
		L/M/J V <sub>CC</sub> =0 to 5V, 空载	80	-	350	ms
V <sub>OL</sub>	复位输出低电压	V <sub>CC</sub> =V <sub>th</sub> min, I <sub>SINK</sub> =1.2mA	-	-	0.3	V
V <sub>OH</sub>	复位输出高电压	V <sub>CC</sub> >V <sub>th</sub> max, I <sub>SOURCE</sub> =500uA	0.8V <sub>CC</sub>	-	-	V
ΔV <sub>th</sub> / (V <sub>th</sub> *ΔTa)	温度系数	-40°C ≤ Ta ≤ 85°C	-	± 150	-	ppm/°C

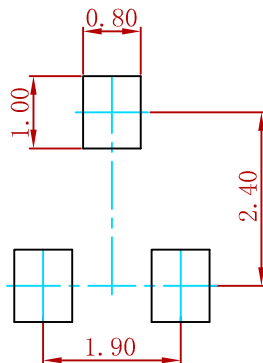
注：(1)、V<sub>th</sub> 为实际电压值, V<sub>th(E)</sub>为标称值。

**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
MAX809	SOT-23-3	3000

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