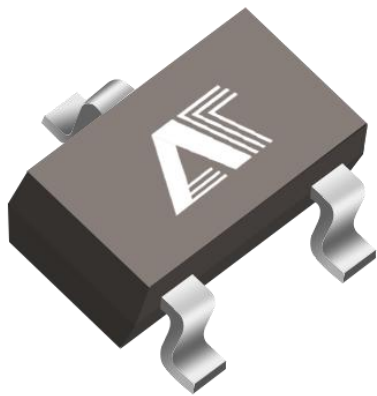




Low-voltage reset detector

MAX810

Product Data Sheet

AOTE DCC
RELEASE

◆ Summary :

The MAX810 series is a microprocessor reset chip with voltage detection function, used to monitor the power supply voltage of microcontrollers or other logic systems.

It can provide a reset signal to the microcontroller during power on/off and power-saving situations. When the power supply voltage is lower than the preset detection voltage, the device will issue a reset signal until the power supply voltage returns to above the detection voltage. When the input voltage of the MAX810 series chip is lower than the detection voltage, the V_{RESET} output is high level, which is simple to apply and does not require external devices.

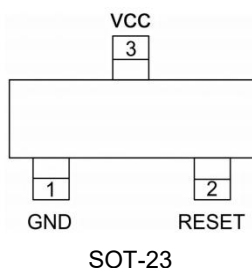
◆ Product features

- Encapsulation: SOT - 23
- Low power consumption: 2uA (typical value)
- Wide working voltage range: 1V~6.0V
- Capable of transient anti-interference with VCC
- No need for external components
- Built in reset delay time 500ms (typical value)
- High precision reset voltage value: $\pm 2.5\%$
- When the input voltage is higher than the detection voltage, the V_{RESET} output is at a low level

◆ Applications

- Battery powered equipment
- Wireless communication system
- Computer, microcomputer processor
- PAD and handheld devices
- Critical MP power monitoring
- Embedded system

◆ Packaging form and pin definition

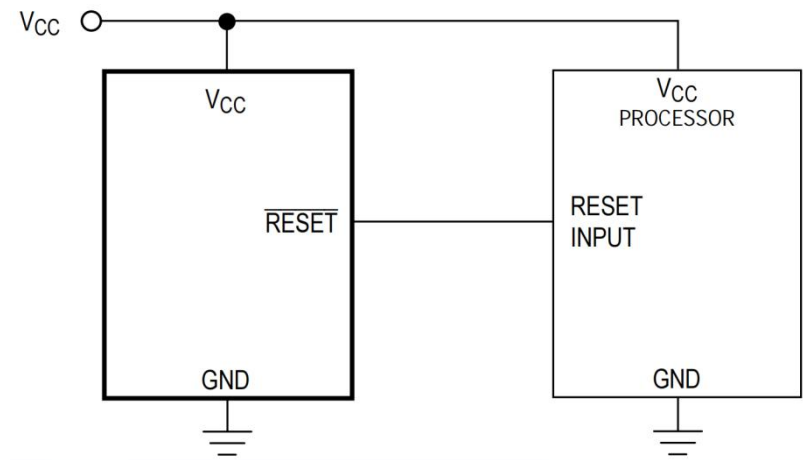


Pin number	Pin definition	Functional Description
SOT23		
1	GND	Chip grounding terminal
3	VCC	Chip input terminal
2	RESET	Reset output terminal

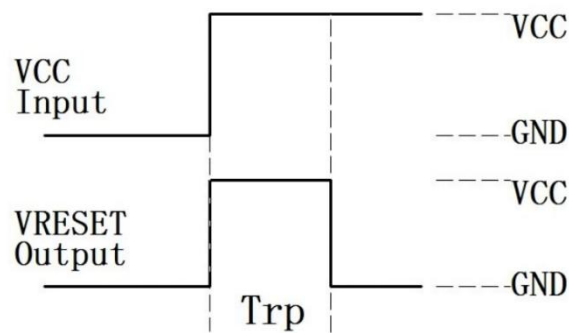
◆ Model Selection

Name	model	Maximum input voltage (V)	Reset voltage (V)	tolerance	package form
MAX810X	MAX810R	6.0	2.63	$\pm 2.5\%$	SOT23
	MAX810S	6.0	2.93	$\pm 2.5\%$	
	MAX810T	6.0	3.08	$\pm 2.5\%$	

◆ Application Circuit



◆ Power on reset time



◆ Limit parameter

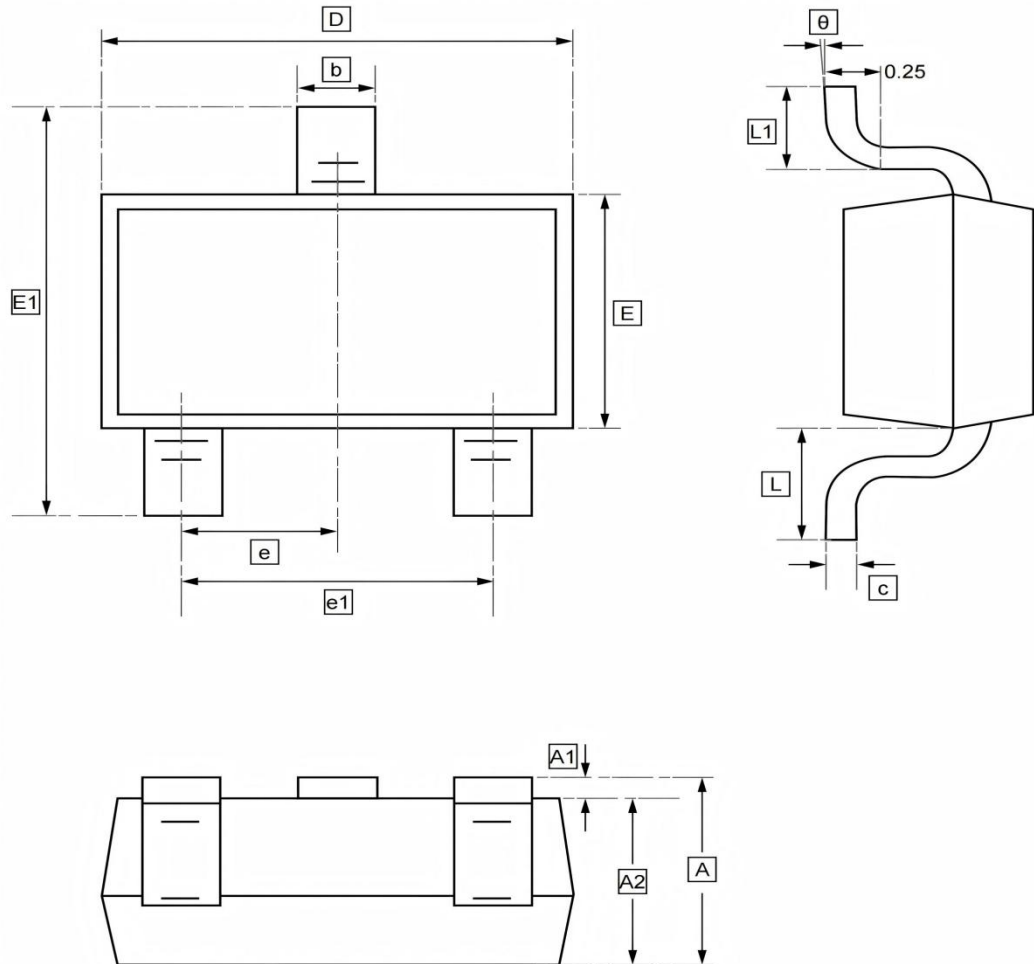
Project	Symbol	Explanation	Limit value	Unit
Voltage	VCC	input voltage	6.5	V
	VRESET	Reset output voltage	-0.3~VCC+0.3	V
Power consumption	PD	SOT23	200	mW
Temperature	TW	Working temperature range	-20~60	°C
	TC	Storage temperature range	-50~125	
	Th	welding temperature	260, 10s	°C

◆ Electrical properties $T_a=25^{\circ}\text{C}$

Symbol	Parameter	Test conditions		Min	Typ	Max	Unit
V_{CC}	Operating Voltage	-		1.0	-	6.0	V
I_{CC}	Quiescent current	$V_{CC}=5.5\text{V}$, No Load		-	2	5	μA
V_{th}	Detect voltage	V_{th}		$0.975V_{th}$	V_{th}	$1.025V_{th}$	V
T_{rd}	Reset falling edge time	$V_{CC}=V_{th}$ to $(V_{th}-100\text{mV})$		-	90	-	ns
T_{rp}	Power on reset time	MAX10 R/S/T, $V_{CC}=0$ to 3.5V	$V_{RESET}=H$ to L , No Load	85	500	900	ms
V_{OH}	Reset output high voltage	$1.8\text{V} < V_{CC} < V_{thmin}$, $I_{SOURCE}=150\mu\text{A}$		$0.8V_{CC}$	-	-	V
$\Delta V_{th}/(V_{th} * \Delta T_a)$	temperature coefficient	$20^{\circ}\text{C} \leq T_a \leq 60^{\circ}\text{C}$		-	± 200	-	ppm/ $^{\circ}\text{C}$

◆ Encapsulation information

SOT23



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
E	1.500	1.700	0.059	0.067
E1	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°

◆ Attention

- AOTE implements dynamic technical updates. Specifications are subject to change. Refer to the official website for the latest version.
- Users must strictly adhere to specified conditions. Failures caused by misuse (overload, high temperature, incompatible circuits) are excluded from warranty.
- Contact technical support for customized validation in critical applications (medical devices, industrial control).
- This document is valid until December 31, 2026 Updates will be notified on the official website.
- For further clarification on technical specifications or application solutions, please contact us through official channels: