

Microprocessor Reset IC

Features

- $\pm 2.5\%$ Voltage Threshold Accuracy
- Independently Adjustable High- and Low-Voltage Thresholds
- Fully Specified Over Temperature
- Available in Three Output Configurations
 - Push-Pull $\overline{\text{RESET}}$ Output (G680L)
 - Push-Pull RESET Output (G680H)
 - Open-Drain $\overline{\text{RESET}}$ Output (G681L)
- 140ms min Power-On Reset Pulse Width
- 4 μA Supply Current
- Power Supply Transient Immunity
- SOT-23-5 Packages

Applications

- Computers
- Controllers
- Intelligent Instruments
- Critical μP and μC Power Monitoring
- Portable / Battery-Powered Equipment
- Automotive

General Description

The G680/G681 are microprocessor (μP) supervisory circuits used to monitor the power supplies in μP and digital systems. High- and Low- voltage thresholds can be adjusted independently, allowing for wide hysteresis. Voltage detection thresholds are accurate to 2%.

These circuits perform a single function: they assert a reset signal whenever the V_{CC} supply voltage declines below the low-voltage threshold, keeping it asserted for at least 140ms after V_{CC} has risen above the high-voltage threshold.

The G681L has an open-drain output stage, while the G680 have push-pull outputs. The G681L's open-drain $\overline{\text{RESET}}$ output requires a pull-up resistor that can be connected to a voltage higher than V_{CC} . The G680L have an active-low $\overline{\text{RESET}}$ output, while the G680H has an active-high RESET output. The reset comparator is designed to ignore fast transients on threshold input.

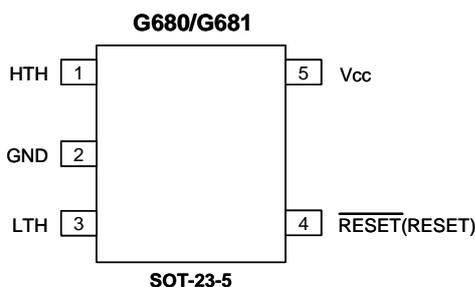
The IC's power supply is separate from the detector inputs, allowing the G680/G681 to be powered from a down-stream supply. Low supply current (4 μA , typical) makes the G680/G681 ideal for use in portable equipment. The G680/G681 are available in SOT-23-5 packages.

Ordering Information

ORDER NUMBER (Pb free/Green)	MARKING	OUTPUT TYPE	TEMP. RANGE	PACKAGE
G680LT1Uf	680Ax	Push-pull $\overline{\text{RESET}}$	-40°C ~ +105°C	SOT-23-5
G680HT1Uf	680Bx	Push-pull RESET	-40°C ~ +105°C	SOT-23-5
G681LT1Uf	681Ax	Open-Drain $\overline{\text{RESET}}$	-40°C ~ +105°C	SOT-23-5

Note: T1: SOT-23-5

Pin Configuration



() is for G680H

Typical Application Circuit

