G674/G675

Microprocessor Reset IC

Features

- **Precision Monitoring of +2.5V and +3V Power-Supply Voltages**
- **Fully Specified Over Temperature**
- **Available in Three Output Configurations**
  Push-Pull $\overline{\text{RESET}}$ Output (G674L)
  Push-Pull RESET Output (G674H)
  Open-Drain $\overline{\text{RESET}}$ Output (G675L)
- **Externally Programmable Time Delay Generator**
- **14µA Supply Current**
- **Guaranteed Reset Valid to V_{CC} = 0.8V**
- **Power Supply Transient Immunity**
- **5 pin SOT-23-5 and 6 pin TDFN2X2 Packages**
- **2% Threshold Accuracy**

Applications

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

General Description

The G674/G675 are microprocessor (µP) supervisory circuits used to monitor the power supplies in µP and digital systems. They provide excellent circuit reliability and low cost and adjustments when used with +2.5V, +3.0V powered circuits.

These circuits perform a single function: they assert a reset signal whenever the V_{CC} supply voltage declines below a preset threshold, with hysteresis keeping it asserted for time delay determined by externally programmable time delay generator after V_{CC} has risen above the reset threshold. Reset thresholds suitable for operation with a variety of supply voltages are available.

The G675L has an open-drain output stage, while the G674 have push-pull outputs. The G675L's open-drain $\overline{\text{RESET}}$ output requires a pull-up resistor that can be connected to a voltage higher than V_{CC}. The G674L have an active-low $\overline{\text{RESET}}$ output, while the G674H has an active-high RESET output. The reset comparator is designed to ignore fast transients on V_{CC}, and the outputs are guaranteed to be in the correct logic state for V_{CC} down to 0.8V.

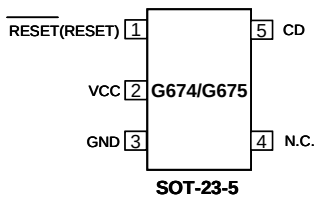
Low supply current makes the G674/G675 ideal for use in portable equipment. The G674/G675 are available in 5-pin SOT-23-5 and 6 pin TDFN2X2 packages.

Ordering Information

ORDER NUMBER	TEMP. RANGE	PACKAGE (Green)
G674HxxxT1U	-40°C ~ +105°C	SOT-23-5
G674LxxxT1U	-40°C ~ +105°C	SOT-23-5
G675LxxxT1U	-40°C ~ +105°C	SOT-23-5
G674HxxxRB1U	-40°C ~ +105°C	TDFN2X2-6
G674LxxxRB1U	-40°C ~ +105°C	TDFN2X2-6
G675LxxxRB1U	-40°C ~ +105°C	TDFN2X2-6

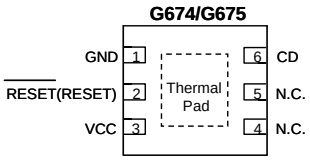
* xxx specifies the threshold voltage.
e.g. 240 denotes the 2.4V threshold voltage.

Pin Configuration



SOT-23-5

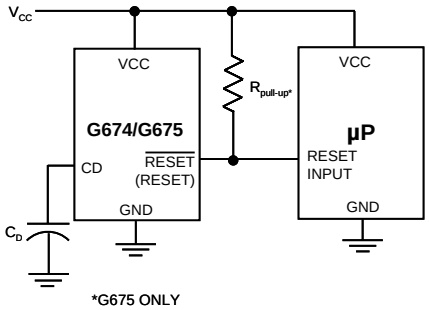
()is for G674H



TDFN2X2-6

Note: Recommend connecting the Thermal Pad to the Ground for excellent power dissipation.

Typical Application Circuit



*G675 ONLY

ICC may increased at high T_A, Therefore, can not connect Resistors to VCC to prevent Icc abnormal behavior at high T_A.