T Global Mixed-mode Technology Inc.

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 RESET Output (G674L) Push-Pull RESET Output (G674H) Open-Drain 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 (μ P) supervisory circuits used to monitor the power supplies in μ P 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





