

Microprocessor Reset IC

Features

- Precision Monitoring of +3V, +3.3V, and +5V Power-Supply Voltages
- Fully Specified Over Temperature
- Available in Two Output Configurations
Push-Pull $\overline{\text{RESET}}$ Output (G676L)
Open-Drain $\overline{\text{RESET}}$ Output (G677L)
- Adjustable Reset Delay Time
- Manual Reset Input with Adjustable Manual Reset Deglitch Time
- 14 μA Supply Current
- Guaranteed Reset Valid to $V_{\text{CC}} = 1\text{V}$
- Power Supply Transient Immunity
- 6 pin SOT-23-6 and ADFN1.5X1.5-6 Packages
- 2% Threshold Accuracy

Applications

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

General Description

The G676/G677 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 +5V, +3.3V, +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 or manual reset is triggered, and keeping it asserted for time delay determined by adjustable time delay generator (CD pin) after V_{CC} has risen above the reset threshold or manual reset is released. Reset thresholds suitable for operation with a variety of supply voltages are available. Manual reset is generated after pull low $\overline{\text{MR}}$ pin lastingly over deglitch time delay set by capacitor connected in MRDLY pin.

The G677L has an open-drain output stage, while the G676 have push-pull outputs. The G677L's open-drain $\overline{\text{RESET}}$ output requires a pull-up resistor that can be connected to a voltage higher than V_{CC} . 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 1V.

Low supply current makes the G676/G677 ideal for use in portable equipment. The G676/G677 are available in 6-pin SOT-23-6 and ADFN1.5X1.5-6 packages.

Ordering Information

ORDER NUMBER	MARKING	TEMP. RANGE	PACKAGE (Green)
G676LxxxTBU	676xx	-40°C ~ +105°C	SOT-23-6
G677LxxxTBU	677xx	-40°C ~ +105°C	SOT-23-6
G676LxxxA31U	66 xx	-40°C ~ +105°C	ADFN1.5X1.5-6
G677LxxxA31U	67 xx	-40°C ~ +105°C	ADFN1.5X1.5-6

* xxx specifies the threshold voltage.

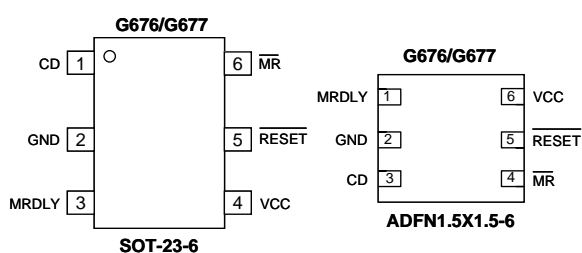
e.g. 263 denotes the 2.64V threshold voltage.

TB: SOT-23-6 A3:ADFN1.5X1.5-6

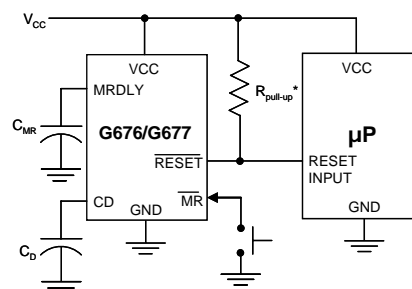
1 : Bonding Code

U: Tape & Reel

Pin Configuration



Typical Application Circuit



*G677 ONLY

ICC may increase at high T_{A} . Therefore, can not connect Resistors to V_{CC} to prevent I_{CC} abnormal behavior at high T_{A} .