G676/G677

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 Re set Deglitch Time**
- **14µA Supply Current**
- **Guaranteed Reset Valid to V_{CC} = 1V**
- **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 VCC 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 VCC. The reset comparator is designed to ignore fast transients on VCC, and the outputs are guaranteed to be in the correct logic state for VCC down to 1V.

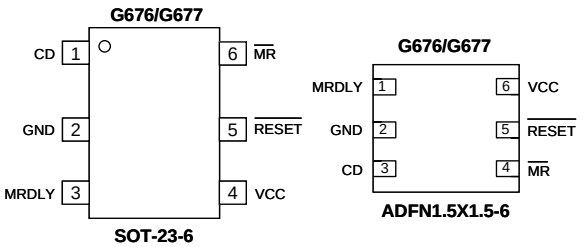
Low supply current makes the G676/G677 ideal for use in portable equipment. The G676/G677 are available in 6-pin SOT-23-6 and ADFN1.5X1.5-6 packages.

Ordering Information

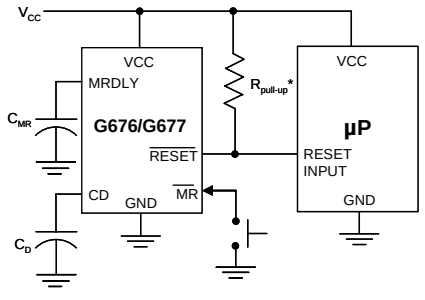
ORDER NUMBER	MARKING	TEMP. RANGE	PACKAGE (Green)
G676LxxxTBU	676xx	-40°C ~ +105°C	SOT-23-6
G677LxxxTBU	677xx	-40°C ~ +105°C	SOT-23-6
G676LxxxA31U	66 xx	-40°C ~ +105°C	ADFN1.5X1.5-6
G677LxxxA31U	67 xx	-40°C ~ +105°C	ADFN1.5X1.5-6

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