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 $\overline{RESET}$ Output (G630)
  Open-Drain $\overline{RESET}$ Output (G631)
- **220ms min Power-On Reset Pulse Width**
- **10µA Supply Current**
- **Guaranteed Reset Valid to V_{CC} = +1V**
- **Power Supply Transient Immunity**
- **No External Components**
- **3-Pin SOT-23 Packages**

Applications

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

General Description

The G630/G631 are microprocessor (µP) supervisory circuits used to monitor the power supplies in µP and digital systems. They provide excellent circuit reliability and low cost by eliminating external components 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, keeping it asserted for at least 220ms after V_{CC} has risen above the reset threshold. Reset thresholds suitable for operation with a variety of supply voltages are available.

The G631 has an open-drain output stage, while the G630 have push-pull outputs. The G631′s open-drain $\overline{RESET}$ output requires a pull-up resistor that can be connected to a voltage higher than V_{CC}. The G630 have an active-low $\overline{RESET}$ 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 1V.

Low supply current makes the G630/G631 ideal for use in portable equipment. The G630/G631 are available in 3-pin SOT-23 packages.
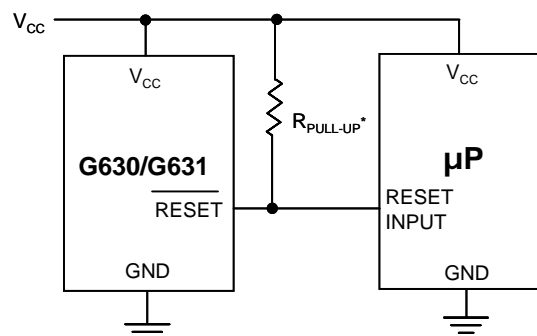
Ordering Information

ORDER NUMBER	MARKING	RESET THRESHOLD(V)	TEMP. RANGE	OUTPUT TYPE	PACKAGE (Green)
G630L293T73U	630Ax	2.93	-40°C ~ +105°C	Push-Pull	SOT-23
G631L293T73U	631Ax	2.93	-40°C ~ +105°C	Open-Drain	SOT-23

Note: T7: SOT-23
   3: Bonding Code
   U: Tape & Reel

Pin Configuration

SOT-23
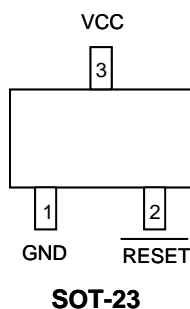
Typical Application Circuit

* G631 ONLY
ICC may increased at high T_A, Therefore, can not connect Resistors to VCC to prevent Icc abnormal behavior at high T_A.