

## Microprocessor Reset IC

### Features

- Precision Monitoring of +3V, +3.3V, and +5V Power-Supply Voltages
- Fully Specified Over Temperature
- Available in Three Output Configurations
  - Push-Pull  $\overline{\text{RESET}}$  Output (G690L)
  - Push-Pull RESET Output (G690H)
  - Open-Drain  $\overline{\text{RESET}}$  Output (G691L)
- 140ms min Power-On Reset Pulse Width
- 10 $\mu$ A Supply Current
- Guaranteed Reset Valid to  $V_{CC} = +1V$
- Power Supply Transient Immunity
- No External Components
- 3-Pin SOT-23 and SC-70-3(SOT-323) Packages

### Applications

- Computers
- Controllers
- Intelligent Instruments
- Critical  $\mu$ P and  $\mu$ C Power Monitoring
- Portable / Battery-Powered Equipment
- Automotive

### General Description

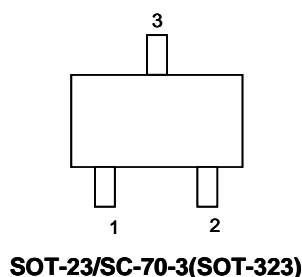
The G690/G691 are microprocessor ( $\mu$ P) supervisory circuits used to monitor the power supplies in  $\mu$ P and digital systems. They provide excellent circuit reliability and low cost by eliminating external components and adjustments when used with +5V, +3.3V, +3.0V- powered circuits.

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 140ms after  $V_{CC}$  has risen above the reset threshold. Reset thresholds suitable for operation with a variety of supply voltages are available.

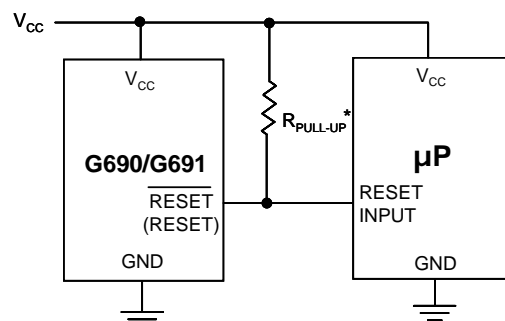
The G691L has an open-drain output stage, while the G690 have push-pull outputs. The G691L's open-drain  $\overline{\text{RESET}}$  output requires a pull-up resistor that can be connected to a voltage higher than  $V_{CC}$ . The G690L have an active-low  $\overline{\text{RESET}}$  output, while the G690H 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 1V.

Low supply current makes the G690/G691 ideal for use in portable equipment. The G690/G691 are available in 3-pin SOT-23 and SC-70-3(SOT-323) packages.

### Pin Configuration



### Typical Application Circuit



**\*G691 ONLY**

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