

Low Voltage Reset IC

Features

- Monitor Supply Voltages of $\pm 2\%$ Reset Threshold Accuracy
- Internal Set Reset Timeout Period 200ms (TYP)
- Manual $\overline{\text{RESET}}$ Input ($\overline{\text{MR}}$)
- Low Quiescent Current : $15\mu\text{A}$ at $\text{VCC}=3.3\text{V}$
- Available in three $\overline{\text{RESET}}$ Output Options
 - Push-Pull $\overline{\text{RESET}}$ Output (G686L)
 - Push-Pull $\overline{\text{RESET}}$ Output (G686H)
 - Open-Drain $\overline{\text{RESET}}$ (G687L)
- Guaranteed Reset Valid to $\text{VCC} = 1\text{V}$
- Power-Supply Transient Immunity
- SOT-23-5 Package

Applications

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

General Description

The G686/G687 microprocessor (μP) supervisory circuits monitor system voltages in μP and digital systems. They provide excellent circuit reliability at low cost by eliminating external components.

Since the sense pin is separated from power supply, it allows the IC to monitor added power supply. Using the IC with the sense pin separated from power supply enables output to maintain the state of detection even when voltage of the monitored power supply drops to 0V. The VSEN pin is high impedance and can be used for application of reset threshold programming.

Moreover, with the built-in reset timeout delay about 800ms, enables the IC remains asserts after the VSEN has risen above reset threshold or manual reset is deasserted.

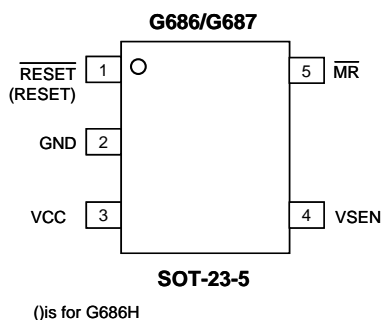
The G686/G687 is available in SOT-23-5 packages.

Ordering Information

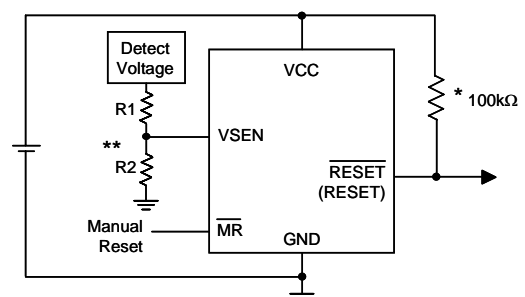
| ORDER NUMBER | MARKING | TEMP. RANGE | OUTPUT TYPE | PACKAGE (Green) |
|--------------|---------|----------------|-----------------------|-----------------|
| G686LT11U | 68FLx | -40°C ~ +105°C | Push-Pull Active Low | SOT-23-5 |
| G686HT11U | 68FHx | -40°C ~ +105°C | Push-Pull Active High | SOT-23-5 |
| G687LT11U | 68GLx | -40°C ~ +105°C | Open Drain | SOT-23-5 |

Note: T1: SOT-23-5
 1: Bonding Code
 U: Tape Reel

Pin Configuration



Typical Application Circuit



*The 100kΩ pull up resistor is only for G687L

**Adjustable reset threshold voltage is $V_{th} = 0.994 \times \frac{R1+R2}{R2}$

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