

## Microprocessor Reset IC

### Features

- Precision Monitoring Voltage of +2.2V and +3.7V
- Fully Specified Over Temperature
- Available in Three Output Configurations
  - Push-Pull  $\overline{\text{RESET}}$  Output (G656L)
  - Push-Pull  $\text{RESET}$  Output (G656H)
  - Open-Drain  $\overline{\text{RESET}}$  Output (G657L)
- Reset Deassert Time Smaller than 100 $\mu\text{s}$  when  $V_{\text{CC}}$  Higher than Monitor Voltages (CD Pin Floating)
- Externally Programmable Time Delay Generator
- 27 $\mu\text{A}$  Supply Current at  $V_{\text{CC}}=3.3\text{V}$
- Guaranteed Reset Valid to  $V_{\text{CC}} = 0.8\text{V}$
- TSOT-23-5 Packages
- 2% Threshold Accuracy

### Applications

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

### General Description

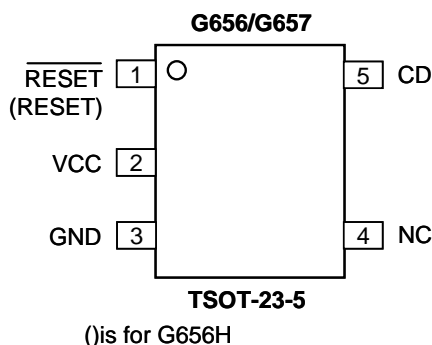
The G656/G657 are microprocessor ( $\mu\text{P}$ ) supervisory circuits used to monitor the power supplies in  $\mu\text{P}$  and digital systems. They provide excellent circuit reliability and low cost.

These circuits perform a single function: they assert a reset signal whenever the  $V_{\text{CC}}$  supply voltage declines below a preset threshold, with hysteresis keeping it asserted for time delay determined by externally programmable time delay generator after  $V_{\text{CC}}$  has risen above the reset threshold.

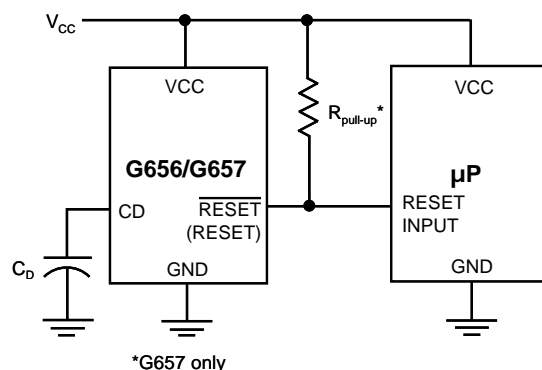
The G657L has an open-drain output stage, while the G656 have push-pull outputs. The G657L's open-drain  $\overline{\text{RESET}}$  output requires a pull-up resistor that can be connected to a voltage higher than  $V_{\text{CC}}$ . The G656L has an active-low  $\overline{\text{RESET}}$  output, while the G656H has an active-high  $\text{RESET}$  output. The outputs are guaranteed to be in the correct logic state for  $V_{\text{CC}}$  down to 0.8V.

The G656/G657 are available in 5-pin TSOT-23-5 package.

### Pin Configuration



### Typical Application Circuit



ICC may increase at high  $T_A$ . Therefore, do not connect resistors to  $V_{\text{CC}}$  to prevent  $I_{\text{CC}}$  abnormal behavior at high  $T_A$ .