LMC6041 CMOS Single Micropower Operational Amplifier

Check for Samples: LMC6041

FEATURES

- **Low Supply Current: 14 µA (Typ)**
- **Operates from 4.5V to 15.5V Single Supply**
- **Ultra Low Input Current: 2 fA (Typ)**
- **Rail-to-Rail Output Swing**
- **Input Common-Mode Range Includes Ground**

APPLICATIONS

- **Battery Monitoring and Power Conditioning**
- **Photodiode and Infrared Detector Preamplifier**
- **Silicon Based Transducer Systems**
- **Hand-Held Analytic Instruments**
- **pH Probe Buffer Amplifier**
- **Fire and Smoke Detection Systems**
- **Charge Amplifier for Piezoelectric Transducers**

DESCRIPTION

Ultra-low power consumption and low input-leakage current are the hallmarks of the LMC6041. Providing input currents of only 2 fA typical, the LMC6041 can operate from a single supply, has output swing extending to each supply rail, and an input voltage range that includes ground.

The LMC6041 is ideal for use in systems requiring ultra-low power consumption. In addition, the insensitivity to latch-up, high output drive, and output swing to ground without requiring external pull-down resistors make it ideal for single-supply battery-powered systems.

Other applications for the LMC6041 include bar code reader amplifiers, magnetic and electric field detectors, and hand-held electrometers.

This device is built with TI's advanced Double-Poly Silicon-Gate CMOS process.

See the LMC6042 for a dual, and the LMC6044 for a quad amplifier with these features.

Connection Diagrams

Top View

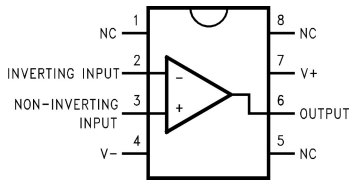

Figure 1. 8-Pin SOIC or PDIP Package
See Package Number D0008A or P0008E

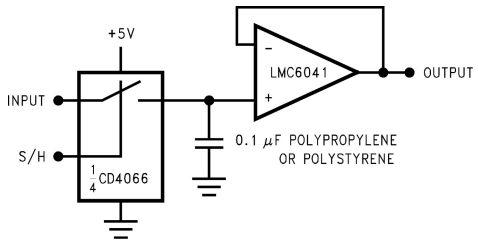

Figure 2. Low-Leakage Sample and Hold

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