High-Side Current Sense Amplifiers

Uncompromising Accuracy and Efficiency in Extreme Environments

Microchip's newest high-side current sense amplifiers combat extreme temperatures and electrically noisy environments without sacrificing resolution.

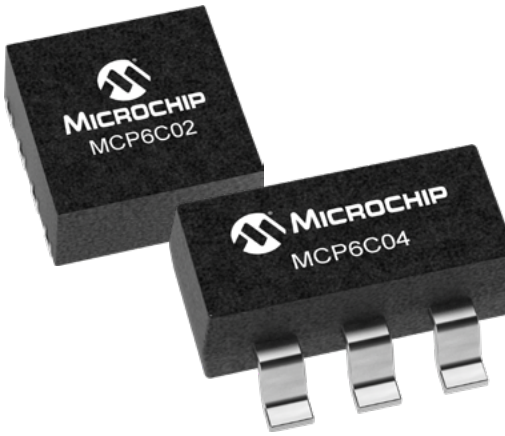
With industry-leading, ultra-low offsets, the zero-drift architecture of the MCP6C02 and MCP6C04 enables the use of smaller, more energy-efficient shunt resistors while delivering high-accuracy current measurement.

The AEC-Q100-qualified MCP6C02 delivers a maximum offset error of only 12 µV, the industry's lowest offset voltage for any Grade 0 high-side current sense amplifier. Both the MCP6C02 and the MCP6C04 additionally feature an on-chip electromagnetic interference (EMI) filter. The on-chip EMI filtering provides protection against unpredictable, high-frequency electrical interference including wireless hotspots and radio frequencies. Combined with the amplifiers' zero-drift architecture, this feature allows the development of higher performance solutions across a wide variety of applications including motor control, power supplies and battery management.

To support and accelerate your design development, our new ADM01104 evaluation board supports both the MCP6C02 and MCP6C04. The board ships pre-populated and offers multiple reference voltage options.

Key Features

- Ultra-low offsets
- Ideal for noisy or harsh environments
- Monitor current over a wide voltage range
- High-speed, fast settling for control loop applications



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