



Allegro MicroSystems Redefines Magnetic Current Sensing with Compact, Integrated Solutions for Industrial, Automotive and Clean Energy Applications

07/08/2024

New Sensor Solutions Improve Design Efficiency and Reliability with Enhanced Protection

MANCHESTER, N.H., July 08, 2024 (GLOBE NEWSWIRE) -- [Allegro MicroSystems, Inc.](#) ("Allegro") (Nasdaq: ALGM), a global leader in power and sensing solutions for motion control and energy-efficient systems, today announced the launch of its newest [high-power current sensor](#), the [ACS37220](#), as well as the preliminary release of the industry's smallest leaded magnetic current sensor, the [ACS37041](#). Allegro's latest solutions enable improved efficiency and reliability, enhanced system protection and a smaller bill of materials compared to discrete shunt resistor and op-amp-based current sensing solutions.

Current shunt solutions require multiple components, take up significant board space and frequently require additional PCB layers and heatsinks to maintain acceptable thermal performance. These factors inevitably add weight and size, as well as design complexities that often lead to increased cost and production time.

Allegro's new sensors address current industry challenges by providing a smaller footprint, higher efficiency, and simpler integration. The ACS37220 is designed to replace high-power sense resistors and can be used for high-current monitoring applications up to 200A. The ACS37041 offers a high level of integration in a compact SOT23-W package and is suitable for a wide range of current sensing applications up to 30A.

"We are excited to bring the ACS37220 and ACS37041 to market. Their small footprint and low-power dissipation provides our customers with a great alternative to traditional shunts," said Shaun Milano, Business Line Director, Current Sensors at Allegro. "Allegro's new current sensors demonstrate the company's commitment to driving innovation and developing highly efficient sensor technology that address the needs of our customers and the design community as a whole."

Allegro's new current sensors integrate the functions of the shunt resistor, shunt amplifier and other passive components into a single package. The compact design and efficiency improvements make them ideal low voltage (< 100 V) sensors compared to traditional shunts, while offering the following benefits:

Lower heat dissipation: The lower conductor resistance of integrated magnetic current sensors' lead frames results in cooler system temperatures.

Simplified design: With fewer components to place and route, PCB layout is more straightforward.

Innovative packaging: Allegro's integrated sensor solutions integrate the functionality of a traditional shunt resistor circuit into a single package, simplifying component placement and streamlining the design process while minimizing the overall board of materials (BOM).

To learn more about the ACS37220 and ACS37041, or to order evaluation boards, design tools, and samples, visit <https://www.allegromicro.com/en/Insights-and-Innovations/Allegro-Technology/eliminate-the-shunt>.

About Allegro MicroSystems

Allegro MicroSystems, Inc. is a leading global designer, developer, fabless manufacturer and marketer of sensor integrated circuits ("ICs") and application-specific analog power ICs enabling emerging technologies in the automotive and industrial markets. Allegro's diverse product portfolio provides efficient and reliable solutions for the electrification of vehicles, automotive ADAS safety features, automation for Industry 4.0 and power-saving technologies for data centers and clean energy applications. For additional information, please visit <https://www.allegromicro.com/en/>.

Media Contact:

Tyler Weiland
Corporate Communications
+1 (972) 571-7834
tweiland.cw@allegromicro.com

Allegro Contact:

Laura Kozikowski
Sr. Director of Global Marketing
lkozikowski@allegromicro.com