Battery Monitoring ICs

KA49701A and KA49702A are 1-chip battery monitoring IC for Li-ion battery cells, which have built-in high-resolution ADCs and can measure the voltage and current levels of battery cells with high accuracy. The ICs can support applications with up to 17 battery cells connected in series or applications with a maximum voltage of 85V, contributing to the miniaturization of battery management systems. They achieve a voltage measurement accuracy +/-2.9mV, the highest standard in the industry. Additionally, the ICs can support a high-side switch as a charging and discharging relay switch control.

Achievements:

1. Voltage measurement accuracy +/-2.9mV, the highest standard in the industry[*1)], realizes the effective use of battery performance. The high-accuracy voltage measurement helps to meet system requirements including stationary Energy Storage System (ESS) manufactured to comply with China GB Standards (GB/T34131-2023).

2. Self-diagnosis function is installed on main circuits such as AD Converter (ADC) and Multiplexer (MUX). This advanced Battery Monitoring ICs (BM-ICs) make it possible to detect latent failures inside of the chips, which contribute to your simple safe system construction without external circuits.

3. Our specific lineup for Low-side and High-side Switch offers you an option to realize a cost-effective or a higher-safety system. Both products provide with the best solution for battery control in wide range of applications.

4. **Applications:**
5. Energy Storage System (ESS), server, e-scooter, e-bike, robot, drone, etc.
6.
7. **Product name:**
8. Industrial Battery Monitoring IC
9. KA49701A, KA49702A
10.
11. **Specification:**
12.

Product number	KA49701A	KA49702A
Charging and discharging control method	Low-side Switch	High-side Switch
Maximum connectable cells	17cells	
Maximum operating voltage	85V	
Voltage measurement accuracy	+/- 2.9mV	
Current measurement accuracy	+/- 1.0%	
Package	QFP-48pin (7mm x 7mm)	

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