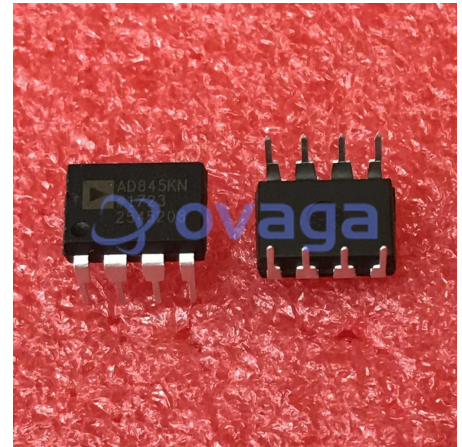


Operational Amplifier, Single, 1 Amplifier, 16 MHz, 100 V/ $\mu$ s,  $\pm 4.75$ V to  $\pm 18$ V, DIP, 8 Pins

Manufacturers	<a href="#">Analog Devices, Inc</a>
Package/Case	PDIP-8
Product Type	Operational Amplifiers (Op Amps) ; JFET Input Op Amps
RoHS	Rohs
Lifecycle	



Images are for reference only

Please submit RFQ for AD845KNZ or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

## General Description

The AD8450 is a precision analog front end for testing and monitoring battery cells. Referring to figure one, a precision programmable gain instrumentation amplifier (PGIA) measures the battery's charge/discharge current and a programmable gain difference amplifier (PGDA) measures the battery's voltage. Internal laser trimmed resistor networks set the gains for the PGIA and the PGDA, optimizing the AD8450's performance over the rated temperature range. PGIA gains are 26 $\times$ , 66 $\times$ , 133 $\times$ , and 200 $\times$ . PGDA gains are 0.2 $\times$ , 0.27 $\times$ , 0.4 $\times$ , and 0.8 $\times$ .

Voltages at the ISET and VSET inputs set the desired constant voltage (CV) and constant current (CC) values. CC to CV switching is automatic and transparent to the system.

A TTL level logic input, MODE, selects between charge and discharge modes (high for charge, low for discharge). An analog output, VCTRL, interfaces directly with ADI's ADP1972 & ADP1974 PWM controllers.

The AD8450 includes resistor programmable overvoltage and overcurrent detection and current sharing circuitry. Current sharing is used to balance charge among multiple batteries. The AD8450 simplifies designs by providing excellent accuracy, performance over temperature, flexibility with functionality, and overall reliability in a space-saving package. The AD8450 is available in an 80 lead 14 mm  $\times$  14 mm  $\times$  1 mm LQFP package and is rated at  $-40$   $^{\circ}$ C to  $+85$   $^{\circ}$ C operating temperature.

## Features

Integrated constant current and voltage modes with automatic switchover

Charge and Discharge modes

Precision voltage and current measurement

Integrated precision control feedback blocks

Precision interface to PWM or linear power converters

Programmable gain settings

Current sense gains: 26, 66, 133, 200

Voltage sense gains: 0.2, 0.27, 0.4, 0.8

Programmable OVP, OCP fault detection

Current sharing & balancing

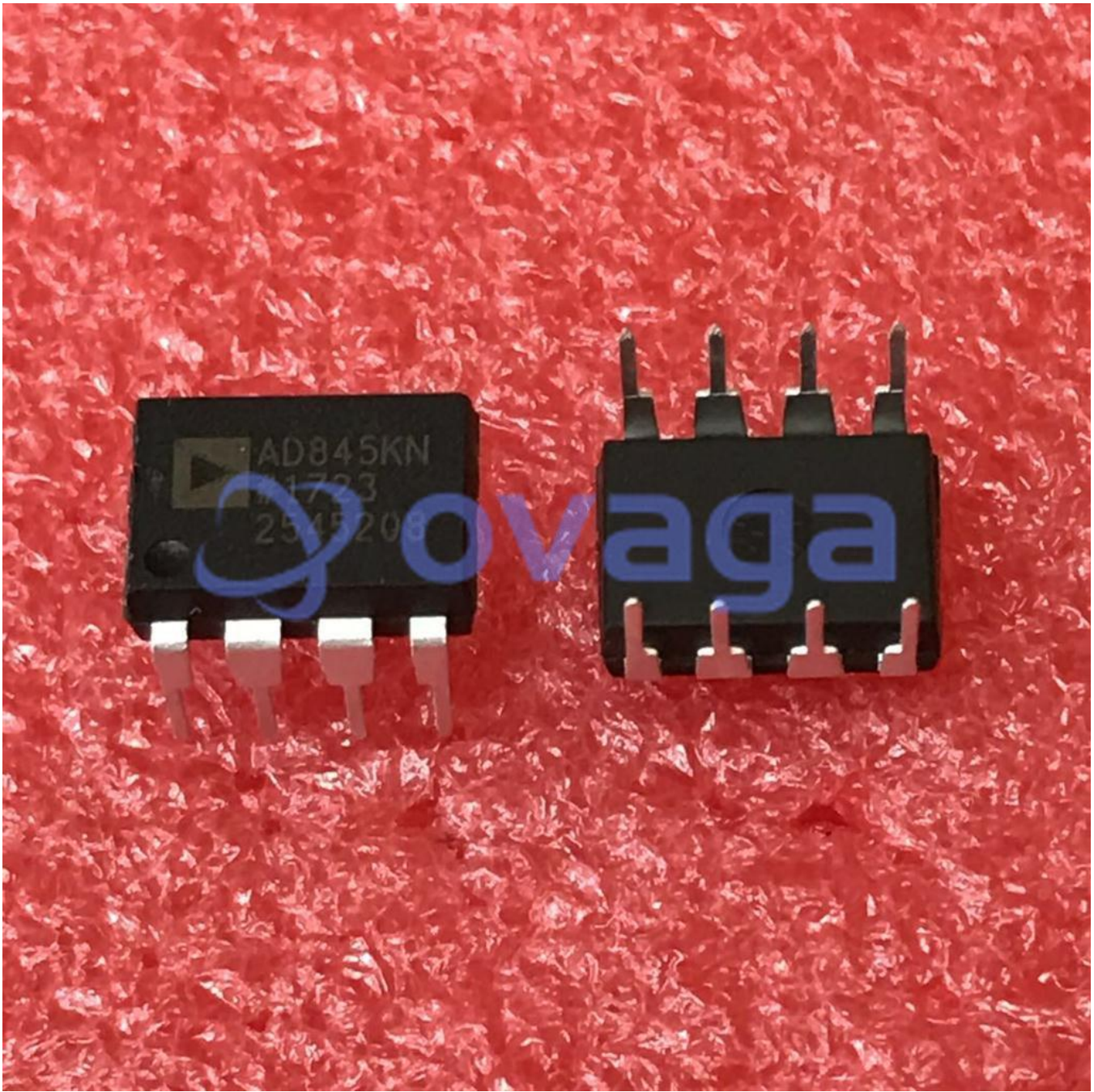
Excellent ac & dc performance

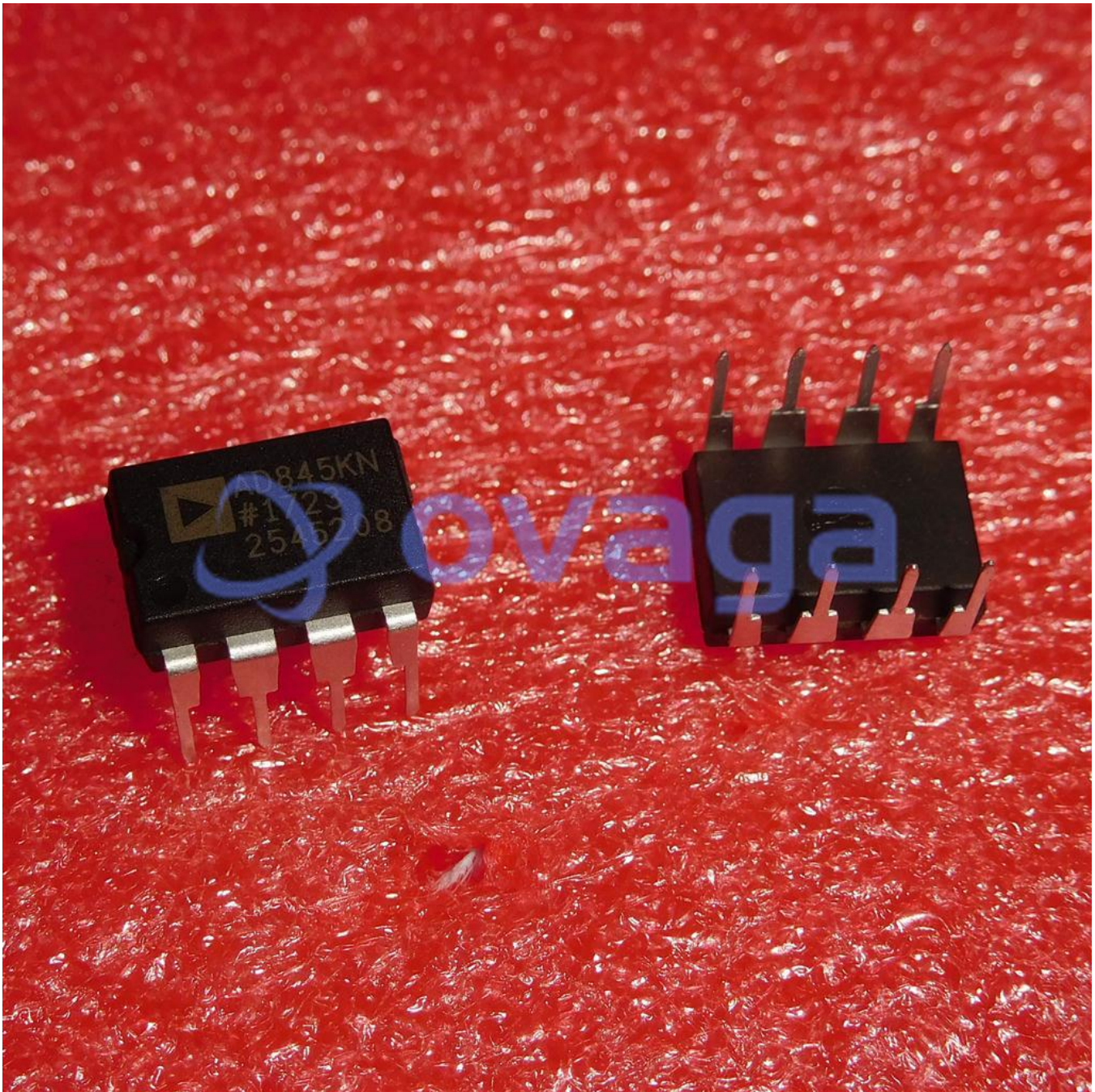
See datasheet for additional features

## Application

Battery cell testing & formation

Battery module testing





### Related Products



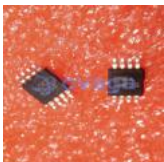
[AD8418BRMZ-RL](#)

Analog Devices, Inc  
MSOP-8



[ADA4528-2ARMZ-R7](#)

Analog Devices, Inc  
MSOP-8



[ADA4084-2ARMZ](#)

Analog Devices, Inc  
MSOP-8



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MSOP8



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