

Operational Amplifier, Dual, 2 Amplifier, 1.5 MHz, 2 V/ $\mu$ s, 5V to 16V, SOIC, 8 Pins

Manufacturers	<a href="#">Analog Devices, Inc</a>
Package/Case	SOP-8
Product Type	Amplifier ICs
RoHS	Pb-free Halide free
Lifecycle	



Images are for reference only

Please submit RFQ for AD8639ARZ or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

## General Description

The AD8638/AD8639 are single and dual wide bandwidth, auto-zero amplifiers featuring rail-to-rail output swing and low noise. These amplifiers have very low offset, drift, and bias current. Operation is fully specified from 5 V to 16 V single supply ( $\pm 2.5$  V to  $\pm 8$  V dual supply).

The AD8638/AD8639 provide benefits previously found only in expensive zero-drift or chopper-stabilized amplifiers. Using the Analog Devices, Inc., topology, these auto-zero amplifiers combine low cost with high accuracy and low noise. No external capacitors are required. In addition, the AD8638/AD8639 greatly reduce the digital switching noise found in most chopper-stabilized amplifiers.

With a typical offset voltage of only 3  $\mu$ V, drift of 0.01  $\mu$ V/ $^{\circ}$ C, and noise of 1.2  $\mu$ V p-p (0.1 Hz to 10 Hz), the AD8638/AD8639 are suited for applications in which error sources cannot be tolerated. Position and pressure sensors, medical equipment, and strain gage amplifiers benefit greatly from nearly zero drift over their operating temperature ranges. Many systems can take advantage of the rail-to-rail output swing provided by the AD8638/AD8639 to maximize signal-to-noise ratio (SNR).

The AD8638/AD8639 are specified for the extended industrial temperature range ( $-40^{\circ}$ C to  $+125^{\circ}$ C). The single AD8638 is available in tiny 5-lead SOT-23 and 8-lead SOIC packages. The dual AD8639 is available in 8-lead MSOP, 8-lead SOIC, and 8-lead LFCSP packages.

The AD8638/AD8639 are members of a growing series of auto-zero op amps offered by Analog Devices (see Table 1 in the data sheet).

## Features

Low Offset Voltage: 9  $\mu$ V maximum

Offset drift: 0.04  $\mu$ V/ $^{\circ}$ C maximum

Rail-to-Rail output swing

5 V to 16 V single-supply or  $\pm$ 2.5 V to  $\pm$ 8 V dual-supply operation

High gain: 136 dB typical

High CMRR: 133 dB typical

High PSRR: 143 dB typical

Very low input bias current: 40 pA maximum

Low supply current: 1.3 mA maximum

## Application

Pressure and position sensors

Strain gage amplifiers Medical instrumentation

Thermocouple amplifiers Automotive sensors

Precision references

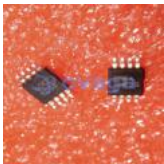
Precision current sensing

## Related Products



### [AD8418BRMZ-RL](#)

Analog Devices, Inc  
MSOP-8



### [ADA4084-2ARMZ](#)

Analog Devices, Inc  
MSOP-8



### [AD8567ARUZ](#)

Analog Devices, Inc  
TSSOP-14



### [AD8022ARMZ](#)

Analog Devices, Inc  
MSOP-8



### [ADA4528-2ARMZ-R7](#)

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### [AD8062ARMZ](#)

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### [AD8628AUJZ](#)

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### [AD8041AR](#)

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