AD823ARZ-R7

Data Sheet

Dual, 16 MHz, Rail-to-Rail FET Input Amplifier; Package: SOIC; No of Pins: 8; Temperature Range: Industrial

Manufacturers	Analog Devices, Inc
Package/Case	SOIC-8
Product Type	Amplifier ICs
RoHS	Pb-free Halide free
Lifecycle	

Images are for reference only

Please submit RFQ for AD823ARZ-R7 or Email to us: sales@ovaga.com We will contact you in 12 hours. RFQ

General Description

The AD823 is a dual precision, 16 MHz, JFET input op amp that can operate from a single supply of 3.0 V to 36 V or from dual supplies of ±1.5 V to ±18 V. It has true single-supply capability with an input voltage range extending below ground in single-supply mode. Output voltage swing extends to within 50 mV of each rail for I

OUT ≤ 100 µA, providing outstanding output dynamic range.

An offset voltage of 800 µV maximum, an offset voltage drift of 2 µV/°C, input bias currents below 25 pA, and low input voltage noise provide dc precision with source impedances up to a Gigaohm. It provides 16 MHz, −3 dB bandwidth, −108 dB THD @ 20 kHz, and a 22 V/µs slew rate with a low supply current of 2.6 mA per amplifier. The AD823 drives up to 500 pF of direct capacitive load as a follower and provides an output current of 15 mA, 0.5 V from the supply rails. This allows the amplifier to handle a wide range of load conditions.

This combination of ac and dc performance, plus the outstanding load drive capability, results in an exceptionally versatile amplifier for applications such as A/D drivers, high speed active filters, and other low voltage, high dynamic range systems.

The AD823 is available over the industrial temperature range of −40°C to +85°C and is offered in both 8-lead PDIP and 8-lead SOIC packages.

Features

Single-supply operation

Output swings rail-to-rail

Input voltage range extends below ground

Single-supply capability from 3 V to 36 V

High load drive

Capacitive load drive of 500 pF,>

Output current of 15 mA, 0.5 V from supplies

Excellent ac performance on 2.6 mA/amplifier

350 ns settling time to 0.01% (2 V step)

Slew rate of 22 V/µs

Good dc performance

800 µV maximum input offset voltage

2 µV/°C offset voltage drift

25 pA maximum input bias current

Low distortion: −108 dBc worst harmonic @ 20 kHz

Low noise: 16 nV/√Hz @ 10 kHz

No phase inversion with inputs to the supply rails

Application

Battery-powered precision instrumentation

Photodiode preamps

Active filters

12-bit to 16-bit data acquisition systems

Medical instrumentation

Related Products

AD8418BRMZ-RL

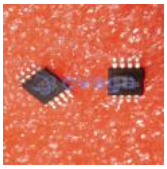
Analog Devices, Inc

MSOP-8

ADA4528-2ARMZ-R7

Analog Devices, Inc

MSOP-8



ADA4084-2ARMZ

Analog Devices, Inc

MSOP-8

AD8062ARMZ

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[AD8567ARUZ](#)

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