AD8028ARMZ-REEL7

Data Sheet

High Speed Operational Amplifiers Low Distortion Hi Spd RRIO

Manufacturers	Analog Devices, Inc
Package/Case	MSOP-10
Product Type	Amplifier ICs
RoHS	Rohs
Lifecycle	

Images are for reference only

Please submit RFQ for AD8028ARMZ-REEL7 or Email to us: sales@ovaga.com We will contact you in 12 hours. RFQ

General Description

The AD8027/AD8028 are high speed amplifiers with rail-to-railinput and output that operate on low supply voltages and areoptimized for high performance and a wide dynamic signal range.The AD8027/AD8028 have low noise (4.3 nV/√Hz, 1.6 pA/√Hz)and low distortion (120 dBc at 1 MHz). In applications that use afraction of or use the entire input dynamic range and requirelow distortion, the AD8027/AD8028 are ideal choices.

Many rail-to-rail input amplifiers have an input stage that switchesfrom one differential pair to another as the input signal crossesa threshold voltage, which causes distortion. The AD8027/AD8028have a unique feature that allows the user to select the inputcrossover threshold voltage through the DISABLE/SELECT pin(DISABLE/SELECT x in the 10-lead MSOP, hereafter referredto as DISABLE/SELECT throughout this data sheet). This featurecontrols the voltage at which the complementary transistorinput pairs switch. The AD8027/AD8028 also have intrinsicallylow crossover distortion.

With their wide supply voltage range (2.7 V to 12 V) and widebandwidth (190 MHz), the AD8027/AD8028 amplifiers aredesigned to work in a variety of applications where speed andperformance are needed on low supply voltages. The high performanceof the AD8027/AD8028 is achieved with a quiescentcurrent of only 6.5 mA (typical) per amplifier. The AD8027/AD8028 have a shutdown mode that is controlled viathe DISABLE/SELECT pin.

The AD8027/AD8028 are available in 8-lead SOIC, 6-lead SOT-23,and 10-lead MSOP packages. The AD8028WARMZ-R7 is anautomotive grade version, qualified for automotive applications.See the Automotive Products section for more details. TheAD8027/AD8028 family is designed to work over the extendedtemperature range of −40°C to +125°C.

Features

High speed

190 MHz, −3 dB bandwidth>

100 V/μs slew rate

Low distortion

120 dBc at 1 MHz SFDR

80 dBc at 5 MHz SFDR

Selectable input crossover threshold

Low noise

4.3 nV/√Hz

1.6 pA/√Hz

Low offset voltage: 900 μV maximum

Low power: 6.5 mA per amplifier supply current

Power-down mode

No phase reversal: VIN > |VS| + 200 mV

Wide supply range: 2.7 V to 12 V

Small packaging: 8-lead SOIC, 6-lead SOT-23, 10-lead MSOP

Qualified for automotive applications (AD8028WARMZ-R7 only)

Application

Filters

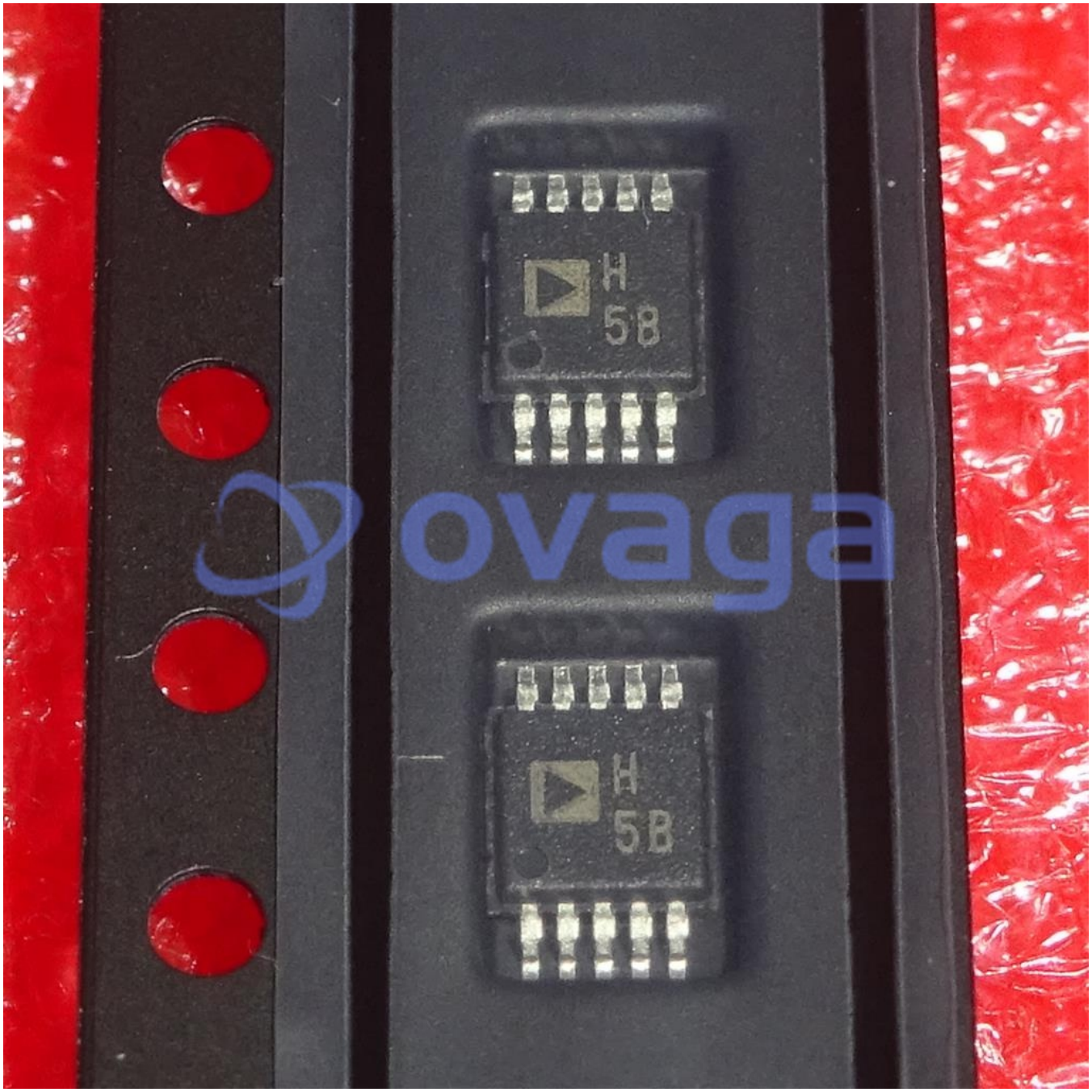
ADC drivers

Level shifting

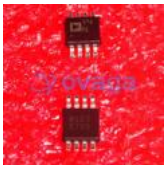
Buffering

Professional video

Low voltage instrumentation



Related Products



[AD8418BRMZ-RL](#)

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MSOP-8

[ADA4528-2ARMZ-R7](#)

Analog Devices, Inc

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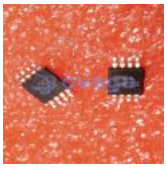

[ADA4084-2ARMZ](#)

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MSOP-8

[AD8062ARMZ](#)

Analog Devices, Inc

MSOP8

AD8567ARUZ

Analog Devices, Inc

TSSOP-14

AD8628AUJZ

Analog Devices, Inc

SOP23

AD8022ARMZ

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MSOP-8

AD8041AR

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SOP-8