

Precision Amplifiers IC Input Current Dual Bipolar

Manufacturers	<a href="#">Analog Devices, Inc</a>
Package/Case	SOIC-8
Product Type	Amplifier ICs
RoHS	Rohs
Lifecycle	



Images are for reference only

Please submit RFQ for AD706ARZ-REEL or [Email to us: sales@ovaga.com](mailto:sales@ovaga.com) We will contact you in 12 hours.

[RFQ](#)

## General Description

The AD706 is a dual, low power, bipolar op amp that has the low input bias current of a JFET amplifier, but which offers a significantly lower  $I_B$  drift over temperature. It utilizes superbeta bipolar input transistors to achieve picoampere input bias current levels (similar to FET input amplifiers at room temperature), while its  $I_B$  typically only increases by 5 at 125°C (unlike a JFET amp, for which  $I_B$  doubles every 10°C for a 1000% increase at 125°C). The AD706 also achieves the microvolt offset voltage and low noise characteristics of a precision bipolar input amplifier.

Since it has < 200 pA of bias current, the AD706 does not require the commonly used “balancing” resistor. Furthermore, the current noise is only 50 fA/√Hz, which makes this amplifier usable with very high source impedances. At 600 A max supply current (per amplifier), the AD706 is well suited for today’s high density boards.

The AD706 is an excellent choice for use in low frequency active filters in 12-bit and 14-bit data acquisition systems, in precision instrumentation, and as a high quality integrator. The AD706 is internally compensated for unity gain and is available in five performance grades. The AD706J is rated over the commercial temperature range of 0°C to +70°C. The AD706A is rated for the extended industrial temperature range of -40°C to +85°C.

The AD706 is offered in two varieties of an 8-lead package: PDIP and surface-mount (SOIC).

### Product Highlights

The AD706 is a dual low drift op amp that offers JFET level input bias currents, yet has the low  $I_B$  drift of a bipolar amplifier. It may be used in circuits using dual op amp such as the LT1024.

The AD706 provides both low drift and high dc precision.

The AD706 can be used in applications where a chopper amplifier would normally be required but without the chopper’s inherent noise.

## Features

High DC Precision

100  $\mu$ V Max Offset Voltage

1.5  $\mu$ V/ $^{\circ}$ C Max Offset Drift

200 pA Max Input Bias Current

0.5  $\mu$ V p-p Voltage Noise, 0.1 Hz to 10 Hz

750  $\mu$ A Supply Current

Available in 8-Lead PDIP and Surface-Mount (SOIC) Packages

Available in Tape and Reel in Accordance with EIA-481A Standard

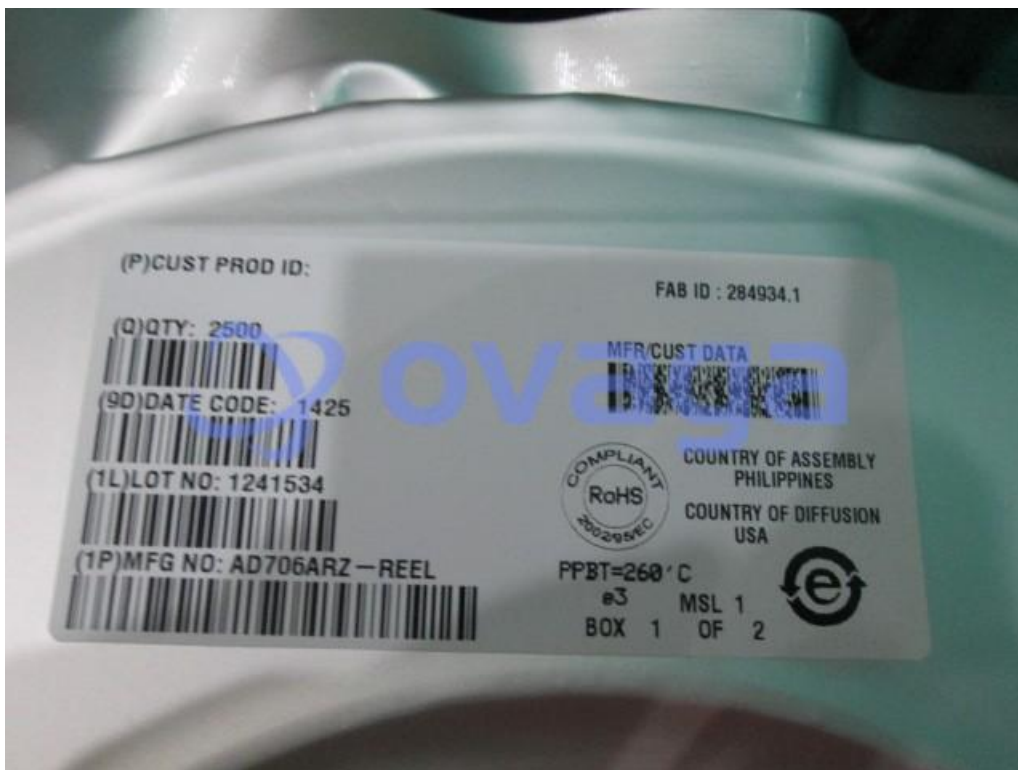
Quad Version:

## Application

Low Frequency Active Filters

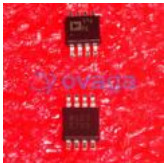
Precision Instrumentation

Precision Integrators



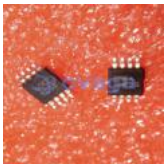


## Related Products



### [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](#)

Analog Devices, Inc  
MSOP-8



### [AD8062ARMZ](#)

Analog Devices, Inc  
MSOP8



### [AD8628AUJZ](#)

Analog Devices, Inc  
SOP23



### [AD8041AR](#)

Analog Devices, Inc  
SOP-8