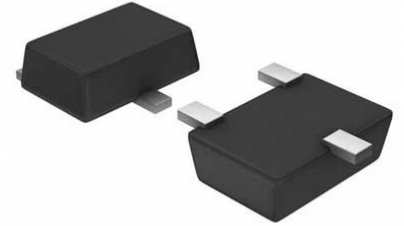


Op Amp Single High Speed Amplifier $\pm 6V/12V$ 6-Pin SOT-23

T/R

Manufacturer: [Texas Instruments, Inc](#)**Package/Case:** SOT23-6**Product Type:** Amplifier ICs**RoHS:** RoHS Compliant/Lead free **Lifecycle:** Active

Images are for reference only

[Inquiry](#)**General Description**

The OPA847 combines very high gain bandwidth and large signal performance with an ultra-low input noise voltage ($0.85\text{nV}/\sqrt{\text{Hz}}$) while using only 18mA supply current. Where power saving is critical, the OPA847 also includes an optional power shutdown pin that, when pulled low, disables the amplifier and decreases the supply current to $< 1\%$ of the powered-up value. This optional feature may be left disconnected to ensure normal amplifier operation when no power-down is required.

The combination of very low input voltage and current noise, along with a 3.9GHz gain bandwidth product, make the OPA847 an ideal amplifier for wideband transimpedance applications. As a voltage gain stage, the OPA847 is optimized for a flat frequency response at a gain of $+20\text{V}/\text{V}$ and is stable down to gains as low as $+12\text{V}/\text{V}$. New external compensation techniques allow the OPA847 to be used at any inverting gain with excellent frequency response control. Using this technique in a differential Analog-to-Digital Converter (ADC) interface application, shown below, can deliver one of the highest dynamic range interfaces available.

Key Features

HIGH GAIN BANDWIDTH: 3.9GHz

LOW INPUT VOLTAGE NOISE: $0.85\text{nV}/\sqrt{12}$

APPLICATIONS

HIGH DYNAMIC RANGE ADC PREAMPS

LOW NOISE, WIDEBAND, TRANSIMPEDANCE AMPLIFIERS

WIDEBAND, HIGH GAIN AMPLIFIERS

LOW NOISE DIFFERENTIAL RECEIVERS

ULTRASOUND CHANNEL AMPLIFIERS

IMPROVED UPGRADE FOR THE OPA687, CLC425, AND LMH6642

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Recommended For You

OPA445BM

Texas Instruments, Inc

CAN

OPA1611AIDR

Texas Instruments, Inc

SOP8

OPA388QDBVRQ1

Texas Instruments, Inc

SOT23-5

OPA2365AQDRQ1

Texas Instruments, Inc

SOP8

OPA334AIDBVR

Texas Instruments, Inc

SOT23-6

OPA2835IDGSR

Texas Instruments, Inc

MSOP10

OPA656U

Texas Instruments, Inc

SOP8

OPA360AIDCKR

Texas Instruments, Inc

SC70-6

LMI11H/NOPB

Texas Instruments, Inc

CAN8

OPA353UA

Texas Instruments, Inc

SOP8

LMI3700MX/NOPB

Texas Instruments, Inc

SOP16

OPA633KP

Texas Instruments, Inc

DIP8

OPA453FAKTWT

Texas Instruments, Inc

TO263-7

OPA4251UA

Texas Instruments, Inc

SOP14

LMV321M5X/NOPB

Texas Instruments, Inc

SOT23-5