

Op Amp Single High Speed Amplifier $\pm 6V/12V$ 8-Pin SOIC Tube



Images are for reference only

[Inquiry](#)

Manufacturer: [Texas Instruments, Inc](#)

Package/Case: SOP-8

Product Type: Amplifier ICs

RoHS: RoHS Compliant/Lead free 

Lifecycle: Active

General Description

The OPA699 is a wideband, voltage-feedback op amp that offers bipolar output voltage limiting, and is stable for gains+4. Two buffered limiting voltages take control of the output when it attempts to drive beyond these limits. This new output limiting architecture holds the limiter offset error to $\pm 10mV$. The op amp operates linearly to within 20mV of the limits.

The combination of narrow nonlinear range and low limiting offset allows the limiting voltages to be set within 100mV of the desired linear output range. A fast 1ns recovery from limiting ensures that overdrive signals will be transparent to the signal channel. Implementing the limiting function at the output, as opposed to the input, gives the specified limiting accuracy for any gain, and allows the OPA699 to be used in all standard op amp applications.

Nonlinear analog signal processing circuits will benefit from the OPA699 sharp transition from linear operation to output limiting. The quick recovery time supports high-speed applications.

The OPA699 is available in an industry-standard pinout in an SO-8 package. For lower gain applications requiring output limiting with fast recovery, consider the OPA698.

Key Features

HIGH LINEARITY NEAR LIMITING

FAST RECOVERY FROM OVERDRIVE: 1ns

LIMITING VOLTAGE ACCURACY: $\pm 10\text{mV}$

-3dB BANDWIDTH (G = +6): 260MHz

GAIN BANDWIDTH PRODUCT: 1000MHz

STABLE FOR G+4V/V

SLEW RATE: 1400V/ μs

$\pm 5\text{V}$ AND +5V SUPPLY OPERATION

LOW GAIN VERSION: OPA698

APPLICATIONS

TRANSIMPEDANCE WITH FAST OVERDRIVE RECOVERY

FAST LIMITING ADC INPUT DRIVER

LOW PROP DELAY COMPARATOR

NONLINEAR ANALOG SIGNAL PROCESSING

DIFFERENCE AMPLIFIER

IF LIMITING AMPLIFIER

OPA689 UPGRADE

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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