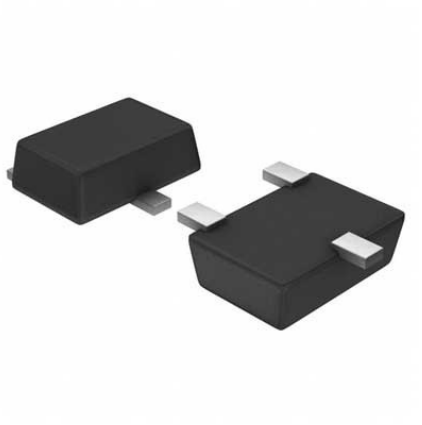
OPA693IDBVT

Op Amp Single Buffer Amplifier ±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 OPA693 provides an easy to use, broadband, fixed gain buffer amplifier. Depending on the external connections, the internal resistor network may be used to provide either a fixed gain of +2 video buffer or a gain of ±1 voltage buffer. Operating on a low 13mA supply current, the OPA693 offers a slew rate (2500V/µs) and bandwidth (> 700MHz) normally associated with a much higher supply current. A new output stage architecture delivers high output current with a minimal headroom and crossover distortion. This gives exceptional single-supply operation. Using a single +5V supply, the OPA693 can deliver a 2.5VPP swing with over 90mA drive current and 500MHz bandwidth at a gain of +2. This combination of features makes the OPA693 an ideal RGB line driver or single-supply undersampling Analog-to-Digital Converter (ADC) input driver.

The OPA693's low 13mA supply current is precisely trimmed at 25°C. This trim, along with low drift over temperature, ensures lower maximum supply current than competing products that report only a room temperature nominal supply current. System power may be further reduced by using the optional disable control pin. Leaving this disable pin open, or holding it HIGH, gives normal operation. This optional disable allows the OPA693 to fit into existing video buffer layouts where the disable pin is unconnected to get improved performance with no board changes. If pulled LOW, the OPA693 supply current drops to less than 170µA while the output goes into a high impedance state. This feature may be used for power savings.

The low gain stable current-feedback architecture used in the OPA693 is particularly suitable for high full-power bandwidth cable driving requirements. Where the additional flexibility of an op amp is required, consider the OPA695 ultra-wideband current feedback op amp. Where a unity gain stable voltage feedback op amp with very high slew rate is required, consider the OPA690.

Key Features

VERY HIGH BANDWIDTH (G = +2): 700MHz

FLEXIBLE SUPPLY RANGE: +5V to +12V Single Supply ±2.5V to ±6V Dual Supplies

INTERNALLY FIXED GAIN: +2 or ±1

LOW SUPPLY CURRENT: 13mA

LOW DISABLED CURRENT: 120µA

HIGH OUTPUT CURRENT: ±120mA

OUTPUT VOLTAGE SWING: ±4.1V

SOT23-6 AVAILABLE

APPLICATIONS
BROADBAND VIDEO LINE DRIVERS

MULTIPLE LINE VIDEO DA

PORTABLE INSTRUMENTS

ADC BUFFERS

HIGH FREQUENCY ACTIVE FILTERS

HFA1112 IMPROVED DROP-IN

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Recommended For You

OPA445BM	**OPA1611AIDR**	**OPA388QDBVRQ1**
Texas Instruments, Inc	Texas Instruments, Inc	Texas Instruments, Inc
CAN	SOP8	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

LM111H/NOPB

Texas Instruments, Inc

CAN8

OPA353UA

Texas Instruments, Inc

SOP8

LM13700MX/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