LT1490AIS8#PBF

Data Sheet

LINEAR TECHNOLOGY LT1490AIS8#PBF Operational Amplifier, Dual, 2 Amplifier, 200kHz, 0.07V/µs, 2V to 44V, SOIC, 8Pins

Manufacturers	Analog Devices, Inc
Package/Case	SOP8
Product Type	Amplifier ICs
RoHS	Green
Lifecycle	

Images are for reference only

Please submit RFQ for LT1490AIS8#PBF or Email to us: sales@ovaga.com We will contact you in 12 hours. RFQ

General Description

The LT1490A/LT1491A are dual and quad op amps with a low input offset voltage of 500µV max. The LT1490A/LT1491A operate on all single and split supplies with a total voltage of 2V to 44V, drawing only 40µA of quiescent current per amplifier. These amplifiers are reverse supply protected; they draw virtually no current for reverse supply up to 18V. The input range of the LT1490A/LT1491A includes both supplies and the output swings to both supplies. Unlike most micropower op amps, the LT1490A/LT1491A can drive heavy loads; their rail-to-rail outputs drive 20mA. The LT1490A/LT1491A are unity-gain stable and drive all capacitive loads up to 10,000pF when optional 0.22µF and 150Ω compensation is used.

The LT1490A/LT1491A have a unique input stage that operates and remains high impedance when above the positive supply. The inputs take 44V both differential and common mode even when operating on a 3V supply. Built-in resistors protect the inputs for faults below the negative supply up to 15V. There is no phase reversal of the output for inputs 15V below V– or 44V above V–, independent of V+.

The LT1490A dual op amp is available in the 8-pin MSOP, PDIP and SO packages. For space limited applications LT1490A is available in a 3mm × 3mm × 0.8mm, dual fine pitch leadless package (DFN). The quad LT1491A is available in the 14-pin SO, PDIP and 5mm × 3mm × 0.8mm DFN packages.

Features

Low Input Offset Voltage: 500μV Max

Output Swings to 10mV Max from V–

Rail-to-Rail Input and Output

Micropower: 50μA/Amplifier Max

Over-The-Top® Input Common Mode Range Extends 44V Above V–, Independent of V+

Specified on 3V, 5V and ±15V Supplies

High Output Current: 20mA

Output Drives 10,000pF with Output Compensation

Reverse Battery Protection to 18V

No Supply Sequencing Problems

High Voltage Gain: 1500V/mV

High CMRR: 98dB

No Phase Reversal

Gain Bandwidth Product: 200kHz

Tiny 3mm × 3mm × 0.8mm DFN Package

Application

Battery- or Solar-Powered Systems

Portable Instrumentation

Sensor Conditioning

Supply Current Sensing

Battery Monitoring

Micropower Active Filters

4mA to 20mA Transmitters

Related Products

LTC1151CSW#PBF

Analog Devices, Inc

SOIC-16

LT1498CS8

Analog Devices, Inc

SOP-8

LTC2053CMS8

Analog Devices, Inc

MSOP8

LTC1150CN8

Analog Devices, Inc

DIP8

LT1491ACS

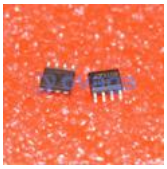
Analog Devices, Inc

SOP14

LT6105IMS8

Analog Devices, Inc

MSOP-8



LTC1150CS8

Analog Devices, Inc

SOP8

LT1013CN8

Analog Devices, Inc

DIP-8