LT1462/LT1463
Dual and Quad Micropower, C-Load, Picoampere Bias Current, 200kHz, JFET Input Op Amps

FEATURES

- **Input Bias Current: 500fA**
- **Supply Current per Amplifier: 40µA Max**
- SO-8 Package—Standard Pinout
- Input Common Mode Range Includes Positive Rail
- **Unity-Gain Stable for C-Load™ Up to 10nF**
- Guaranteed Specs with ±5V, ±15V Supplies
- Guaranteed Matching Specifications
- Gain Bandwidth Product: 200kHz Typ

APPLICATIONS

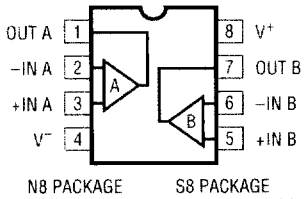
- Battery-Powered Systems
- Photocurrent Amplifiers
- Low Frequency, Micropower Active Filters
- Low Droop Track-and-Hold Circuits

DESCRIPTION

The LT®1462 is the first dual micropower op amp (40µA max) to offer sub-picoampere input bias currents (500fA typ) and unity-gain stability for capacitive loads up to 10nF. The output can swing a 10kΩ load to within 1.5V of either supply, just like op amps that require an order of magnitude more supply current. This unique combination of performance makes the LT1462 ideal for a wide range of input and output impedances. The LT1463 is a quad version of the same amplifier.

In the design and testing of the LT1462, particular emphasis has been placed on optimizing performance in the low cost SO-8 package for ±15V and ±5V supplies. The input common mode range includes the positive rail. Slew rate (0.09V/µs min) and gain bandwidth product (130kHz min) are 100% tested. A full set of matching specifications is also provided.

TOP VIEW

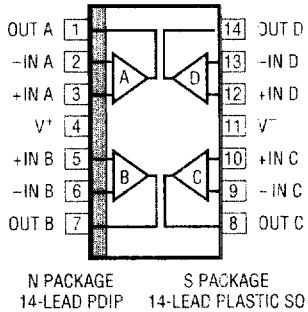


N8 PACKAGE
8-LEAD PDIP

S8 PACKAGE
8-LEAD PLASTIC SO

LT1462CN8
LT1462CS8

TOP VIEW

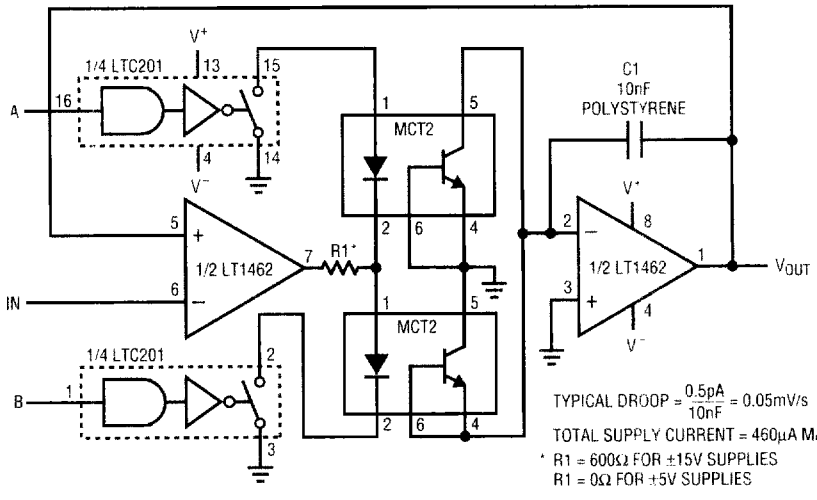


N PACKAGE
14-LEAD PDIP

S PACKAGE
14-LEAD PLASTIC SO

LT1463CN
LT1463CS

Low Droop Track-and-Hold/Peak Detector



TYPICAL DROOP = $\frac{0.5pA}{10nF}$ = 0.05mV/s

TOTAL SUPPLY CURRENT = 460µA MAX

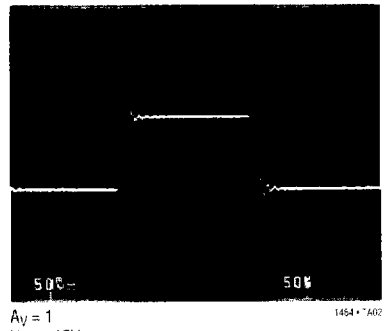
* R1 = 600Ω FOR ±15V SUPPLIES
R1 = 0Ω FOR ±5V SUPPLIES

FUNCTION	MODE	IN A	IN B	MODE	IN A	IN B
Track-and-Hold	Track	0	0	Hold	1	1
Positive Peak Detector	Reset	0	0	Store	0	1
Negative Peak Detector	Reset	0	0	Store	1	0

LTC201 switch is open for Logic "1"

1462 TA01

Small-Signal Response



1462 • TA02

A_V = 1
V_S = ±15V,
C_L = 10,000pF