HARRIS SEMICONDUCTOR

HFA1102

600MHz Current Feedback Amplifier with Compensation Pin

November 1996

Features

- Compensation Pin for Bandwidth Limiting
- Low Distortion (HD2 at 30MHz) ..... -56dBc
- -3dB Bandwidth 600MHz
- Very Fast Slew Rate 2000V/µs
- Fast Settling Time (0.1%) 11ns
- Excellent Gain Flatness
  - (100MHz) ..... ±0.05dB
  - (50MHz) ..... ±0.02dB
  - (30MHz) ..... ±0.01dB
- High Output Current 60mA
- Overdrive Recovery ..... <10ns

Applications

- Low Noise Amplifiers
- Video Switching and Routing
- Pulse and Video Amplifiers
- RF/IF Signal Processing
- Flash A/D Driver
- Medical Imaging Systems

Description

The HFA1102 is a high speed wideband current feedback amplifier featuring a compensation pin for bandwidth limiting. Built with Harris' proprietary complementary bipolar UHF-1 process, it has excellent AC performance and low distortion.

Because the HFA1102 is already unity gain stable, the primary purpose for limiting the bandwidth is to reduce the total noise (broadband) of the circuit. The bandwidth of the HFA1102 may be limited by connecting a capacitor and series damping resistor from pin 8 to ground. Typical bandwidths for various values of compensation capacitors are shown in the Electrical Specifications section of this datasheet.

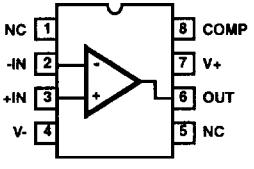
A variety of packages and temperature grades are available. See the ordering information below for details.

Ordering Information

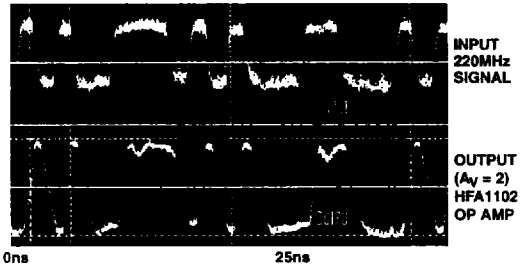
PART NUMBER (BRAND)	TEMP. RANGE (°C)	PACKAGE	PKG. NO.
HFA1102IJ	-40 to 85	8 Ld CERDIP	F8.3A
HFA1102IP	-40 to 85	8 Ld PDIP	E8.3
HFA1102IB (HI102I)	-40 to 85	8 Ld SOIC	M8.15
HFA11XXEVAL	DIP Evaluation Board for High Speed Op Amps		

Pinout

HFA1102
(PDIP, CERDIP, SOIC)
TOP VIEW



The Op Amps with Fastest Edges



5 STANDARD PRODUCTS

CAUTION: These devices are sensitive to electrostatic discharge. Users should follow proper IC Handling Procedures.

File Number 3597.2