HA5352/883

ADVANCE IN

May 1997

Fast Acquisition Dual Sample and Hold Amplifier

Features

- **This Circuit is Processed in Accordance to MIL-STD-883 and is Fully Conformant Under the Provisions of Paragraph 1.2.1.**
- **Fast Acquisition to 0.01% . . . . . .70ns (Max)**
- **Low Offset Error . . . . . ±2mV (Max)**
- **Low Pedestal Error . . . . . ±8mV (Max)**
- **Low Droop Rate . . . . . 2μV/μs (Max)**
- **Wide Unity Gain Bandwidth . . . . . 40MHz (Typ)**
- **Low Power Dissipation per Amp . . . . . .220mW (Max)**
- **Total Harmonic Distortion (Hold Mode) . . -72dBc (Typ) (V_{IN} = 5V_{P-P} at 1MHz)**
- **Fully Differential Inputs**
- **On Board Hold Capacitor**

Applications

- **Synchronous Sampling**
- **Wide Bandwidth A/D Conversion**
- **Deglitching**
- **Peak Detection**
- **High Speed DC Restore**

Description

The HA5352/883 is a fast acquisition, wide bandwidth Dual Sample and Hold amplifier built with the Intersil HBC-10 BiCMOS process. This Sample and Hold amplifier offers the combination of features; fast acquisition time (70ns to 0.01%), excellent DC precision and extremely low power dissipation, making it ideal for use in multi-channel systems that require low power.

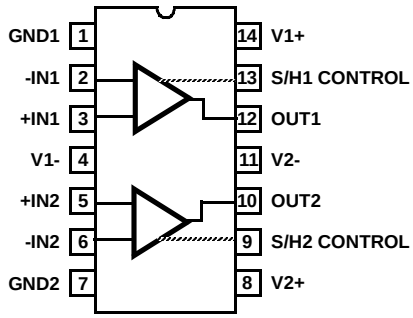
The HA5352/883 comes in an open loop configuration with fully differential inputs providing flexibility for user defined feedback. In unity gain the HA5352/883 is completely self-contained and requires no external components. The on-board 15pF hold capacitors are completely isolated to minimize droop rate and reduce the sensitivity of pedestal error. The HA5352/883 Dual Sample and Hold is available in a 14 lead CerDIP package saving board space while its pinout is designed to simplify layout.

Ordering Information

PART NUMBER	TEMPERATURE RANGE	PACKAGE
HA5352MJ/883	-55°C to +125°C	14 Lead CerDIP

Pinout

HA5352/883
(CERDIP)
TOP VIEW



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