HA5352/883

ADVANCE IN RECOMMENDED FOR NEW DESIGNS

May 1997

NOT RECOMMENDED FOR NEW DESIGNS

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**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 Droop Rate......2μV/μs (Max)**
- Wide Unity Gain Bandwidth . . . . . . . 40MHz (Typ)
- Total Harmonic Distortion (Hold Mode)..-72dBc (Typ)  $(V_{IN} = 5V_{P-P} \text{ at } 1MHz)$
- · 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

