HA5351/883

ADVANCE INFORMATION

NOT RECOMMENDED FOR NEW DESIGNS, SEE HA-5330/883 or contact our Technical Support Center at 1-888-INTERSIL or www.intersil.com

May 1997

**Fast Acquisition, Low Power
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** . . . . $\pm$2mV (Max)

- **Low Pedestal Error** . . . . $\pm$8mV (Max)

- **Low Droop Rate . . . . 2μV/μs (Max)**

- **Wide Unity Gain Bandwidth . . . . 40MHz (Typ)**

- **Low Power Dissipation . . . . 220mW (Max)**

- **Total Harmonic Distortion (Hold Mode). . -72dBc (Typ)**
  (V_{IN} = 5V_{P-P} at 1 MHz)

- **Fully Differential Inputs**

- **On Board Hold Capacitor**

Applications

- **Synchronous Sampling**

- **Wide Bandwidth A/D Conversion**

- **Deglitching**

- **Peak Detection**

- **High Speed DC Restore**
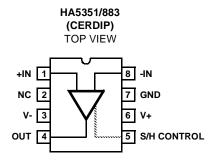
Description

The HA5351/883 is a fast acquisition, wide bandwidth sample/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% maximum), excellent DC precision and extremely low power dissipation, making it ideal for use in systems that sample multiple signals and require low power. In systems with multiple channels also consider the Dual HA-5352/883 sample and hold amplifier.

The HA5351/883 is in an open loop configuration with fully differential inputs providing flexibility for user defined feedback. In unity gain the HA5351/883 is completely self-contained and requires no external components. The on-board 15pF hold capacitor is completely isolated to minimizing droop rate and reduce sensitivity to pedestal error. The HA5351/883 is available in 8 lead CerDIP for minimum board space and easy layout.

Ordering Information

PART NUMBER	TEMPERATURE RANGE	PACKAGE
HA-5351MJ/883	-55°C to +125°C	8 Lead CerDIP

Pinout

**HA5351/883
(CERDIP)**
TOP VIEW

+IN 1
NC 2
V- 3
OUT 4
-IN 8
GND 7
V+ 6
S/H CONTROL 5

Spec Number **511118-883**

File Number **3727.1**