

# HA5023, HA5025

## **ADVANCE INFORMATION**

**April 1993** 

Dual, Quad 100MHz Video Current Feedback Amplifier

Features
Wide Unity Gain Bandwidth 100MHz
• Slew Rate 800V/µs
Output Current
Differential Gain
Differential Phase
Supply Current (per Amplifier)
Supply Range
Crosstalk Rejection at 10MHz60dB
• ESD Protection>2000V
<ul> <li>Guaranteed Specifications at ±5V and ±15V Supplies</li> </ul>

### **Applications**

- Video Gain Block
- Video Distribution Amplifier/ RGB Amplifier
- Flash A/D Driver
- Current to Voltage Converter; DAC Buffer
- Medical Imaging
- Radar and Imaging Systems
- · Video Switching and Routing

### Description

The HA5023 and HA5025 are wide bandwidth high slew rate dual and quad amplifiers optimized for video applications and gains between 1 and 10. They are current feedback amplifiers and thus yield less bandwidth degradation at high closed loop gains than voltage feedback amplifiers.

The low differential gain and phase, 0.1dB gain flatness, and ability to drive two back terminated 75 $\Omega$  cables, make these amplifiers ideal for demanding video applications.

The current feedback design allows the user to take advantage of the amplifier's bandwidth dependency on the feedback resistor. By reducing  $R_{\text{F}}, \ \text{the bandwidth} \ \text{can} \ \text{be}$  increased to compensate for decreases at higher closed loop gains or heavy output loads.

The performance of the HA5023 and HA5025 is very similar to the popular Harris HA-5020.

#### Ordering Information

PART NUMBER	TEMPERATURE RANGE	PRODUCT DESCRIPTION
HA5023IP	-40°C to +85°C	8 Lead Plastic DIP
HA5023IJ	-40°C to +85°C	8 Lead Ceramic DIP
HA5023IB	-40°C to +85°C	8 Lead SOIC
HA5025IP	-40°C to +85°C	14 Lead Plastic DIP
HA5025IJ	-40°C to +85°C	14 Lead Ceramic DIP
HA5025IB	-40°C to +85°C	16 Lead Wide Body SOIC

#### **Pinouts** HA5023 HA5025 HA5025 (PDIP, CDIP, SOIC) (300 MIL SOIC) (PDIP, CDIP) TOP VIEW TOP VIEW **TOP VIEW** OUT1 1 16 OUT4 14 OUT4 OUT1 1 B V+ OUT1 1 15] -IN4 -IN1 2 -IN1 2 7 OUT2 -IN1 2 13 -IN4 +IN1 🛐 14 +IN4 12 +IN4 V+ 4 13 V-11 V-V+ 4 +IN2 5 2 +IN3 JN2 5 10 +IN3 11] -IN3 -IN2 6 еин е -IN2 6 OUT2 7 10 OUT3 B OUT3 9 NC NC 8