Fact Sheet

Military Semiconductor Products

THS4061M / 5962-9960101QxA

SGYV079, May 2000

180 MHz General Purpose High-Speed Amplifier

HIGHLIGHTS

The THS4061 is a general-purpose, high-speed, voltage feedback, single amplifier ideal for a wide range of applications including video, communication and imaging. The device offers very good AC performance with 180-MHz bandwidth, 500-V/µs slew rate, and 40-ns settling time (0.1%). The THS4061 is stable at all gains for both inverting and non-inverting configurations. This amplifier has a high output drive capability of 115 mA and draw only 7.8-mA supply current. Excellent professional video results can be obtained with the low differential gain/phase errors of 0.02%/0.02° and wide 0.1 dB flatness to 75 MHz. For applications requiring low distortion, the THS4061 is ideally suited with total harmonic distortion of -72 dB at f = 1 MHz.

KEY FEATURES/BENEFITS

High Speed

- 180 MHz Bandwidth (G = 1, -3 dB)
- 500 V/µs Slew Rate
- 40-ns Settling Time (0.1%)
- High Output Drive, IO = 115 mA (typ)

Very Low Distortion

- THD = -72 dBc at f = 1 MHz

Excellent Video Performance

- 75 MHz Bandwidth (0.1 dB, G = 1)
- 0.02% Differential Gain
- 0.02° Differential Phase

Wide Range of Power Supplies

- VCC = ±5 V to ±15 V

DIE SIZE

The current die has a size of 40 mils x 39 mils.

TECHNOLOGY

- BICOM-1
- ESD level: 1 kV

PACKAGING

Package Option: 8-pin Ceramic Dual in Line Package (JG)
20-pin Leadless Ceramic Chip Carrier (FK)

POWER DISSIPATION

The table below shows modeled data. This data can be used for approximating system thermal characteristics:

Package Thermal Data

Package	$R_{\theta}JA$	$R_{\theta}JC$
8 Pin DIP	180ºC/W	14.52ºC/W
20-Pin LCC	65ºC/W*	22ºC/W*

*modeled data

Note: much better thermal impedances can be achieved by using air flow or by increasing metal backplane thickness or trace area in the Printed Circuit Board (PCB) that is used.

PROCESS/PERFORMANCE OPTIONS

The THS4061MxxB are processed to MIL-PRF-38535. The DSCC Standard Microcircuit Drawings (SMD) for this device is given below.

DSCC SMD

TI Parent	DSCC SMD
THS4061MFKB	5962-9960101Q2A
THS4061MJGB	5962-9960101QPA
THS4061MJG	N/A

SUPPORT

For additional information on this and other Mixed Signal/Analog Products visit our Mixed Signal home page at:

http://www.ti.com/sc/docs/military/product/mix_sig/mixsig_1.htm

Additional information regarding this product is available by calling the Texas Instruments Product Information Center (PIC during normal business hours (CST/CDT). For European PIC information visit http://www.ti.com/sc/docs/pic/home.htm or call one of the numbers listed below.

SUPPORT LITERATURE

You can access data sheets via TI's home page on the internet (http://www.ti.com) or reference the literature number SLOS234D when contacting the PIC.

Product Information Center

North America

Telephone # - 972-644-5580 (English)
Fax # - 972-480-7800
PIC - www.ti.com/sc/docs/pic/home.htm
PIC E-mail - sc-infomaster@ti.com
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