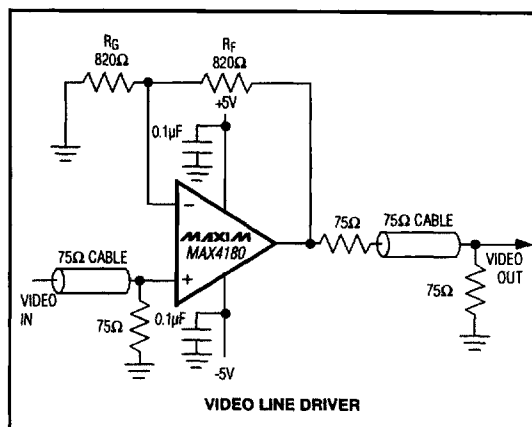


# Low-Power, High-Speed SOT23 Amplifiers

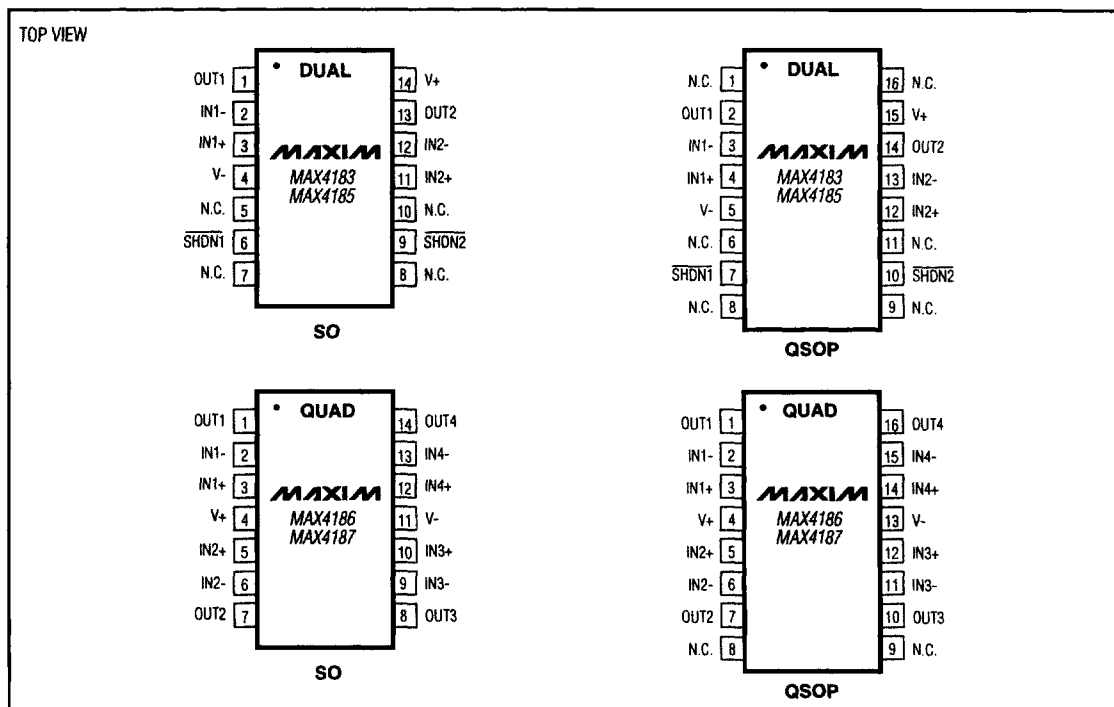
## Ordering Information (continued)

PART	TEMP. RANGE	PIN-PACKAGE
MAX4182ESA	-40°C to +85°C	8 SO
MAX4182EUA	-40°C to +85°C	8 $\mu$ MAX
MAX4183ESD	-40°C to +85°C	14 SO
MAX4183EEE	-40°C to +85°C	16 QSOP
MAX4184ESA	-40°C to +85°C	8 SO
MAX4184EUA	-40°C to +85°C	8 $\mu$ MAX
MAX4185ESD	-40°C to +85°C	14 SO
MAX4185EEE	-40°C to +85°C	16 QSOP
MAX4186ESD	-40°C to +85°C	14 SO
MAX4186EEE	-40°C to +85°C	16 QSOP
MAX4187ESD	-40°C to +85°C	14 SO
MAX4187EEE	-40°C to +85°C	16 QSOP

## Typical Application Circuit



## Pin Configurations (continued)



# ADVANCE INFORMATION

All information in this data sheet is preliminary and subject to change.

11/96

# MAXIM

## Low-Power, High-Speed SOT23 Amplifiers

MAX4180-MAX4187

### General Description

The MAX4180-MAX4187 current-mode feedback amplifiers combine high-speed performance, low distortion, and excellent video specifications with ultra-low-power operation. They operate with dual supplies ranging from  $\pm 2.25V$  to  $\pm 5.5V$  or a single +5V supply, and require only 1mA of supply current per amp. The MAX4180/MAX4181 are single amplifiers, the MAX4182-MAX4185 are dual amplifiers, and the MAX4186/MAX4187 are quad amplifiers. The MAX4180/MAX4182/MAX4183/MAX4186 are optimized for applications with a closed-loop gain of +2 (6dB) or greater and provide a -3dB bandwidth of 275MHz. The MAX4181/MAX4184/MAX4185/MAX4187 are optimized for applications with a gain of +1 (0dB) or greater and have a -3dB bandwidth of 325MHz.

The MAX4180-MAX4187 feature 0.02%/0.04° differential gain and phase errors, a fast 16ns settling time to 0.1%, and a 1000V/ $\mu s$  slew rate, making them ideal for high-performance video applications. The single MAX4180/MAX4181 are offered in space-saving 6-pin SOT23 packages.

### Applications

Broadcast and High-Definition Video Systems  
 Multimedia Products  
 High-Speed A/D Buffers  
 Medical Imaging  
 Professional Cameras  
 CCD Imaging Systems  
 RGB Video  
 Pulse/RF Amplifier

### Features

- ◆ Low Supply Current: 1mA/Amplifier
- ◆ High Speed:
  - 325MHz -3dB Small-Signal Bandwidth (MAX4181/84/85/87)
  - 275MHz -3dB Small-Signal Bandwidth (MAX4180/82/83/86)
- ◆ 1000V/ $\mu s$  Slew Rate
- ◆ Fast Settling Time: 16ns to 0.1%
- ◆ Excellent Video Specifications:
  - 60MHz -0.1dB Gain Flatness (MAX4181/84/85/87)
  - 80MHz -0.1dB Gain Flatness (MAX4180/82/83/86)
  - 0.04° Differential Phase
  - 0.02% Differential Gain
- ◆ Low Distortion: 75dB SFDR (at  $f_c = 5MHz$ ,  $V_o = 2Vp-p$ )
- ◆ 2pF Input Capacitance
- ◆ Available in 6-pin SOT23 Package (MAX4180/81)

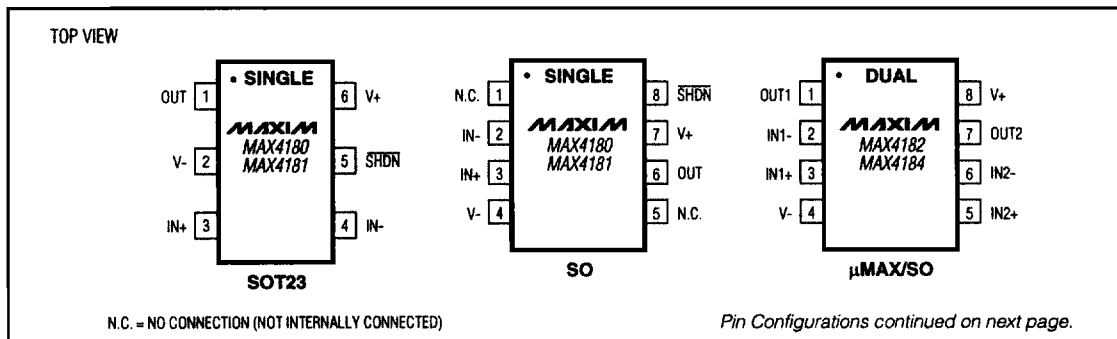
### Ordering Information

PART	TEMP. RANGE	PIN-PACKAGE
MAX4180ESA	-40°C to +85°C	8 SO
MAX4180EUT	-40°C to +85°C	6 SOT23-6
MAX4181ESA	-40°C to +85°C	8 SO
MAX4181EUT	-40°C to +85°C	6 SOT23-6

Ordering Information continued on next page.

### Pin Configurations

8



MAXIM

Maxim Integrated Products 8-167

For free samples & the latest literature: <http://www.maxim-ic.com>, or phone 1-800-998-8800