

### Features

- 150 MHz – 3 dB bandwidth,  $A_V = 20$
- 10 ns settling to 0.1%
- $V_S = \pm 5V @ 15 mA$
- 2.5 ns rise/fall times (2V step)
- Overload/short-circuit protected
- $\pm 7$  to  $\pm 50$  closed-loop gain range
- Low cost
- EL2171 is direct replacement for CLC401
- Disable capability on EL2071

### Applications

- Line drivers
- DC-coupled log amplifiers
- High-speed modems, radios
- High-speed A/D conversion
- D/A I-V conversion
- Photodiode, CCD preamps
- IF processors
- High-speed communications
- Analog multiplexing (using disable—EL2071)
- Power down mode (using disable—EL2071)

### Ordering Information

Part No.	Temp. Range	Package	Outline #
EL2171CN	-40°C to +85°C	8-Pin P-DIP	MDP0031
EL2171CS	-40°C to +85°C	8-Lead SO	MDP0027
EL2071CN	-40°C to +85°C	8-Pin P-DIP	MDP0031
EL2071CS	-40°C to +85°C	8-Lead SO	MDP0027

### General Description

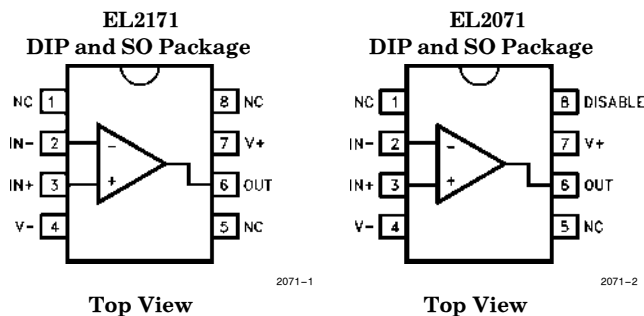
The EL2071 and EL2171 are wide bandwidth, fast settling monolithic amplifiers built using an advanced complementary bipolar process. The EL2071 has a disable/enable feature which allows power down and analog multiplexing. These amplifiers use current-mode feedback to achieve more bandwidth at a given gain than conventional operational amplifiers. Designed for closed-loop gains of  $\pm 7$  to  $\pm 50$ , the EL2071 and EL2171 have a 150 MHz – 3 dB bandwidth ( $A_V = +20$ ), and 2.5 ns rise/fall time, while consuming only 15 mA of supply current. The EL2071 consumes only 1.5 mA when disabled.

The wide 150 MHz bandwidth and extremely linear phase (0.2 dB deviation from linear at 50 MHz) allow superior signal fidelity. These features make the EL2071 and EL2171 especially suited for many digital communication system applications.

The EL2071's and EL2171's settling to 0.1% in 10 ns and ability to drive capacitive loads make them ideal in flash A/D applications. D/A systems can also benefit from the EL2071 and EL2171, especially if linearity and drive levels are important.

Elantec products and facilities comply with MIL-I-45208A, and other applicable quality specifications. For information on Elantec's processing, see Elantec document, *QRA-1: Elantec's Processing, Monolithic Integrated Circuits*.

### Connection Diagrams



Manufactured under U.S. Patent No. 4,893,091

Note: All information contained in this data sheet has been carefully checked and is believed to be accurate as of the date of publication; however, this data sheet cannot be a "controlled document". Current revisions, if any, to these specifications are maintained at the factory and are available upon your request. We recommend checking the revision level before finalization of your design documentation.