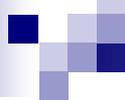




Fast op. amp.

[Renesas EL5104, Analog
Devices AD9631-2]



Fast opamp

- The EL5104, EL5105, EL5204, EL5205, and EL5304 are high-speed voltage feedback amplifiers based on the current feedback amplifier architecture.
- This gives the typical high slew rate benefits of a CFA family along with the stability and ease of use associated with the VFA type architecture.

EL5104

- Specified for 5 V or ± 5 V applications
- -3dB bandwidth = 700 MHz
- ± 0.1 dB bandwidth = 45 MHz
- low supply current = 9.5 mA
- slew rate = 7000 V/ μ s

OPA847

- GBP: 3.9 GHz
- SR: 950 V/ μ s
- optimized for a flat frequency response at a gain of +20 V/V and stable down to gains as low as +12 V/V

AD8099

- The AD8099 features external compensation, which lets the user set the gain bandwidth product
 - external compensation allows gains from +2 to +10
 - component values also depend on package [p. 17]!

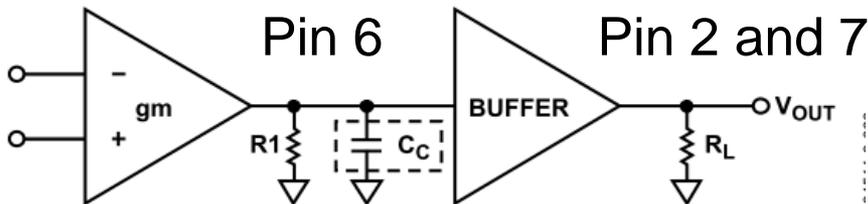
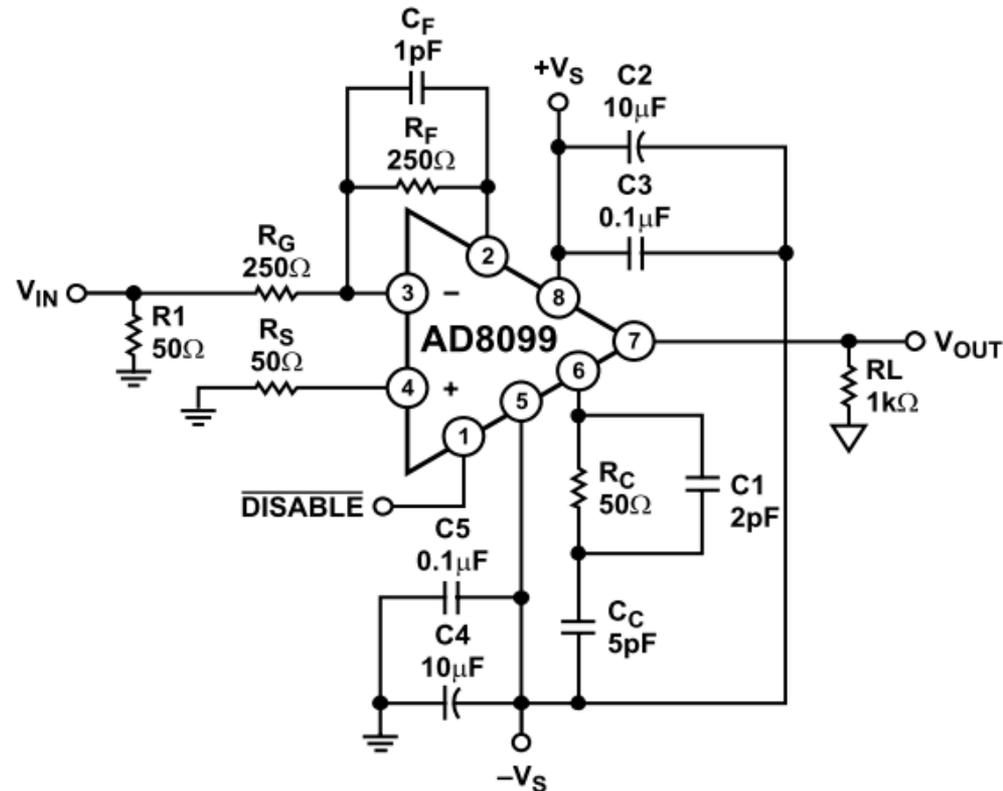


Figure 58. AD8099 Topology



Poor layout may lead to oscillations

- ... also in non-that-fast opamps...
- Example with an OPA548, a high-voltage (± 30 V), high-current (3 A), relatively fast (10 V/ μ s) opamp

