

1.25 Watt Fully Differential Audio Power Amplifier with Internal Feedback Resistors

CP2296_PB_Rev1.0 Oct,2005

OVERVIEW

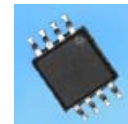
The CP2296 is a fully differential audio power amplifier designed for portable communication device applications. It is capable of delivering 1.25 watt of continuous average power to an 8 Ω BTL load with less than 1% distortion (THD+N) from a 5V battery voltage. It operates from 2.2 to 5.5V.

Features like 86dB PSRR at 217Hz, improved RF-rectification immunity, the space-saving 8-pin MSOP8 and 9-bump micro SMD package, the advanced pop & click circuitry, a minimal count of external components and low-power shutdown mode make CP2296 ideal for wireless handsets.

The CP2296 is unity-gain stable, and the gain can be configured by external input resistors and internal feedback resistors.



9-Bump micro SMD Package
 -40°C ~ 85°C



Mini Small Outline (MSOP8)
 Package
 -40°C ~ 85°C

FEATURES

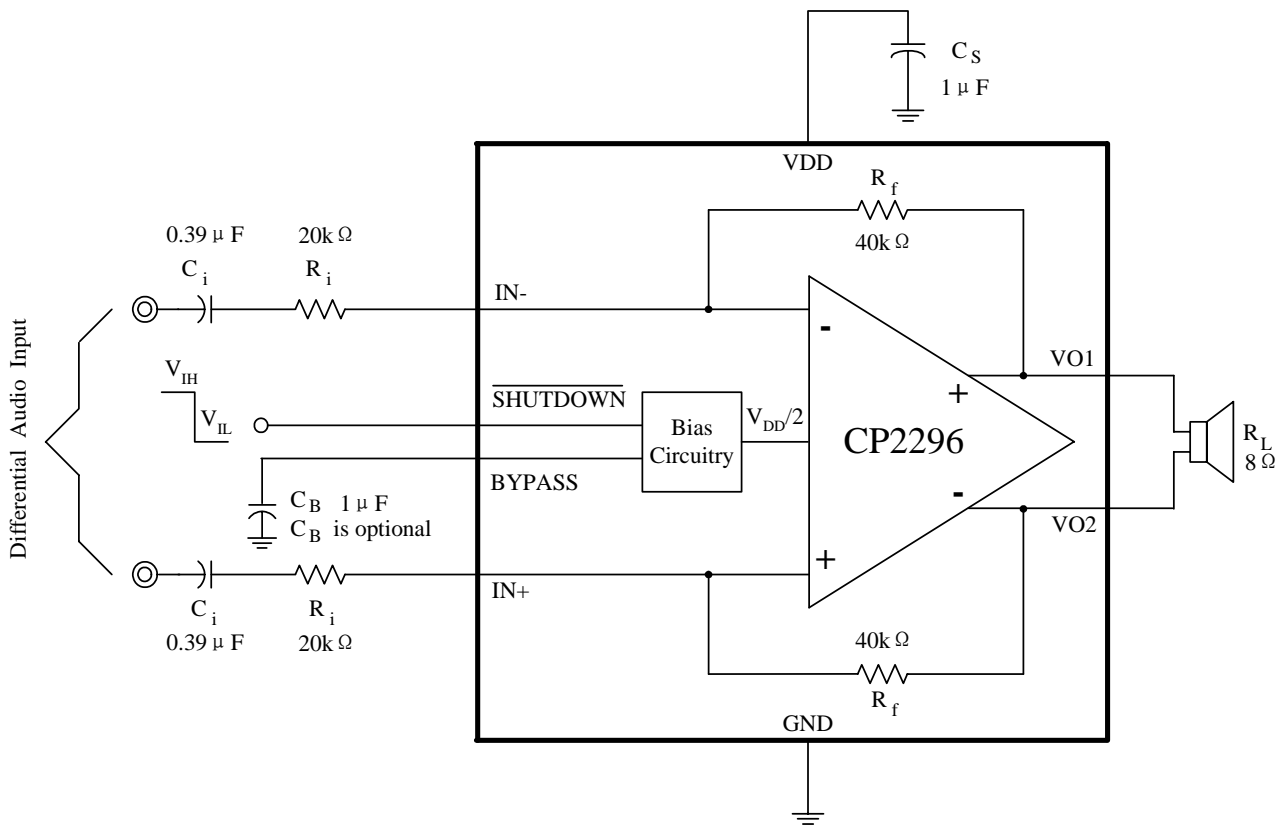
- Fully differential amplifier
- Improved PSRR at 217Hz (VDD>3.0V) 86dB (typ)
- Power output at 5.0V & 1% THD 1.25W (typ)
- Power output at 3.6V & 1% THD 0.6W (typ)
- Ultra low shutdown current 0.01μA (typ)
- Improved pop & click circuitry eliminates noises during turn-on and turn-off transitions
- Thermal overload protection circuitry
- No output coupling capacitors, bootstrap capacitors required
- Unity-gain stable
- External gain configuration capability
- Available in space-saving packages: 9-bump micro SMD and 8-pin MSOP8

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APPLICATIONS

- Wireless handsets
- Portable audio devices
- PDAs, Notebook computers

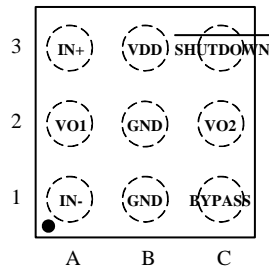
TYPICAL APPLICATION


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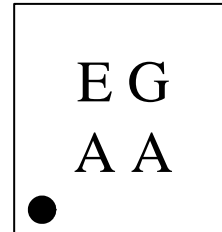
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PIN DIAGRAM (TOP VIEW)

**9 Bump micro SMD Package
 (Top View)**

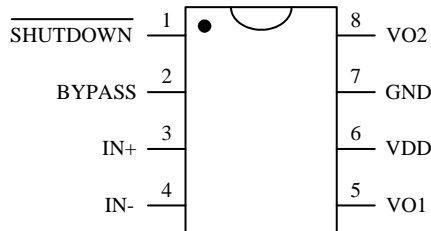


9 Bump micro SMD Marking

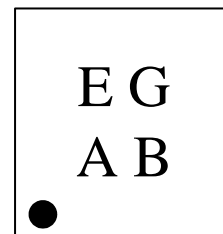


E - Die Run Traceability
 G - Date Code
 AA - CP2296ITLX

**Mini Small Outline (MSOP8) Package
 (Top View)**



MSOP8 Marking



E - Die Run Traceability
 G - Date Code
 AB - CP2296MM

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