
1.25W, Mono, Fully Differential Audio Power Amplifier with Internal Feedback Resistors

General Description

The CP2296 is a fully differential audio power amplifier designed for demanding audio 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 2.2V to 5.5V.

Features like -86dB PSRR at 217Hz, improved RF-rectification immunity, the space-saving CSP9 and MSOP8 package, the advanced pop & click circuitry, a minimal count of external components and low-power shutdown mode make the 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.



CSP9 Package
1.5mm x 1.5mm
-40°C ~ 85°C



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 0.01 μ A (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: CSP9 and MSOP8
- RoHS compliant and 100% lead(Pb)-free

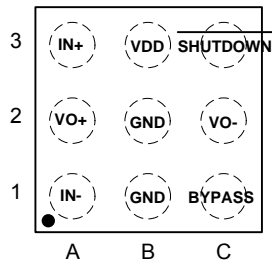
Applications

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

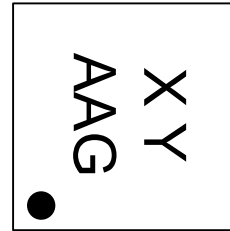
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Pin Configurations

**CSP9 Package
(Top View)**

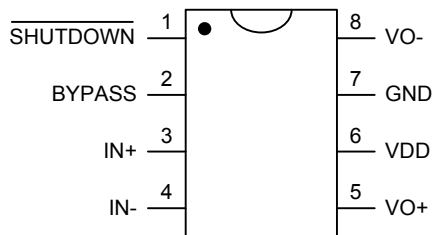


CSP9 Marking

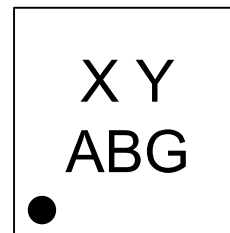


XY -Manufacture Date Code
AAG - CP2296GITLX

**MSOP8 Package
(Top View)**



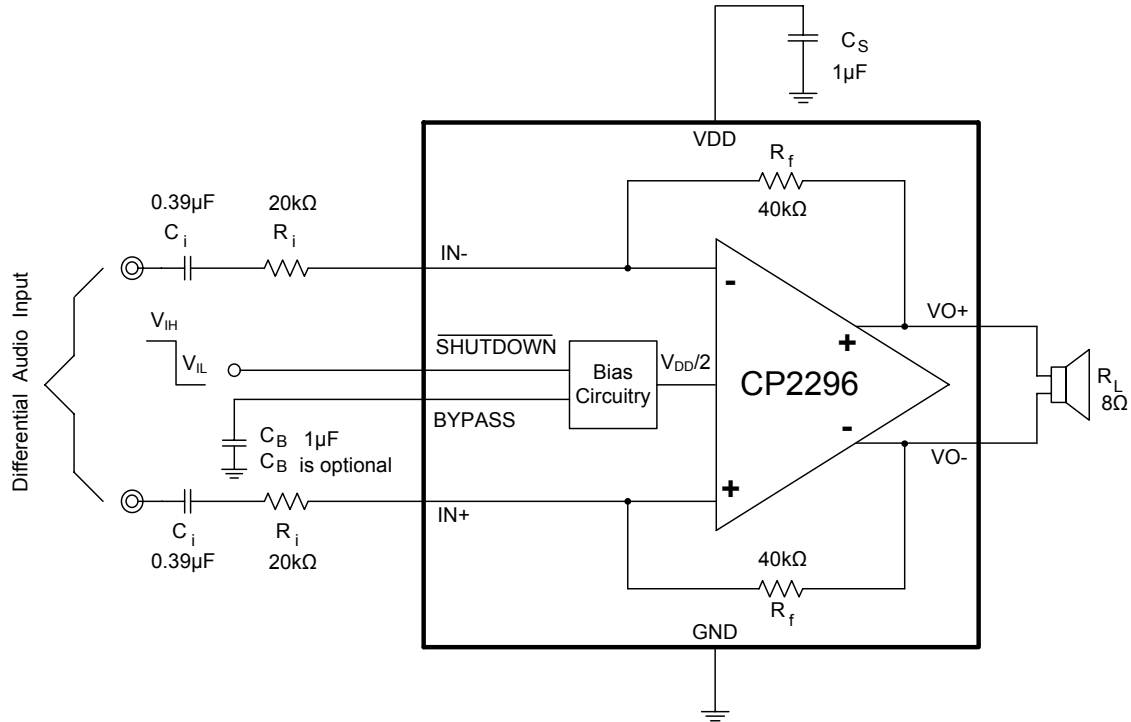
MSOP8 Marking



XY -Manufacture Date Code
ABG - CP2296GMM

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Typical Application



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