

1.25 Watt Fully Differential Audio Power Amplifier

CP2203\_PB\_Rev1.0 Oct,2005

**OVERVIEW**

The CP2203 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 90dB PSRR at 217Hz, improved RF-rectification immunity, the space-saving 8-bump micro SMD package, the advanced pop & click circuitry, a minimal count of external components and low-power shutdown mode make CP2203 ideal for wireless handsets.

The CP2203 is unity-gain stable, and the gain can be configured by external resistors.



8-Bump micro SMD  
 -40°C ~ 85°C

**FEATURES**

- Fully differential amplifier
- Improved PSRR at 217Hz (VDD>3.0V)                      90dB (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
- Space-saving 8-bump micro SMD package

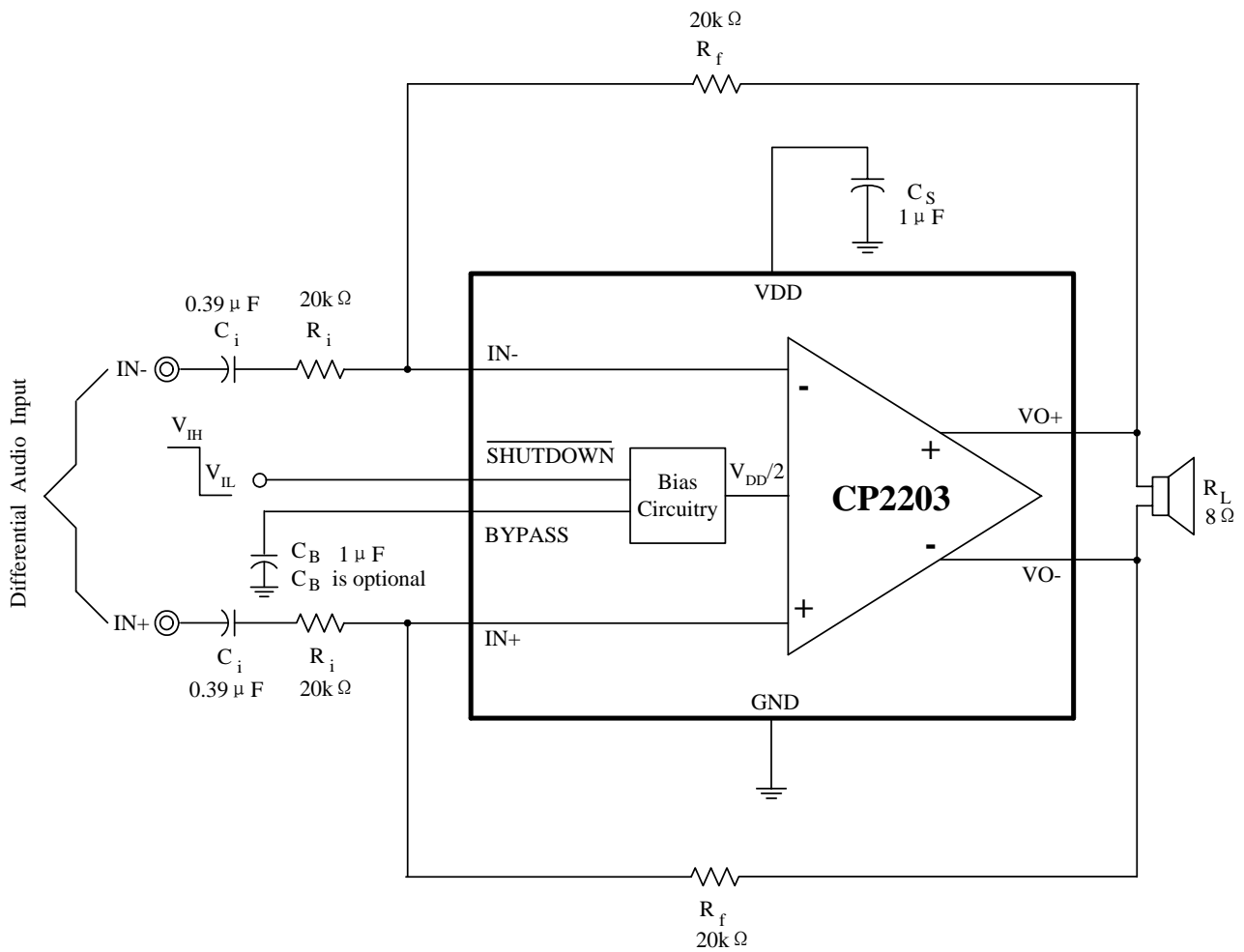
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**APPLICATIONS**

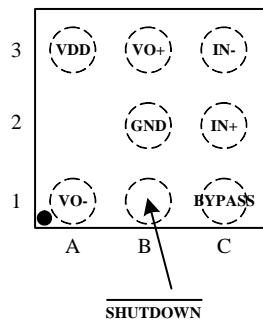
- Wireless handsets
- Portable audio devices
- PDAs, Notebook computers

**TYPICAL APPLICATION**

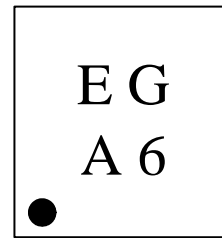


### PIN DIAGRAM (TOP VIEW)

8 Bump micro SMD Package  
(Top View)



8 Bump micro SMD Marking



E - Die Run Traceability  
G - Date Code  
A6 - CP2203ITLX