
3 Watt Audio Power Amplifier**General Description**

The PN8002 is an audio power amplifier primarily designed for demanding applications in mobile phones and other portable communication device applications.

It is capable of delivering 3watt of continuous average power to an 3Ω , BTL load with less than 10% distortion (THD+N) from a 5V DC power supply.

The PN8002 does not require output coupling capacitors or bootstrap capacitors, and therefore is ideally suited for mobile phone and other low voltage applications where minimal power consumption is a primary requirement.

The PN8002 features a low-power consumption shutdown mode, which is achieved by driving the shutdown pin with logic low. Additionally, the PN8002 features an internal thermal shutdown protection mechanism.

Key Specifications

- Power Output at 5.0V,10% THD+N, 3Ω 3W (typ)
- Power Output at 5.0V,10% THD+N, 4Ω 2.6W (typ)
- Power Output at 5.0V,10% THD+N, 8Ω 1.5W (typ)
- Shutdown Current 0.1 μ A (typ)

Features

- Ultra low current shutdown mode
- BTL output can drive capacitive loads
- Improved pop&click circuitry eliminates noises during turn-on and turn-off transitions
- No output coupling capacitors, snubber networks or bootstrap capacitors required
- Unity-gain stable
- External gain configuration capability

Applications

- Mobile Phones
- PDAs Portable
- electronic devices

Operating Ratings

- Temperature Range $-40^{\circ}\text{C} \sim 85^{\circ}\text{C}$
- Supply Voltage $2.0\text{V} \leq \text{VDD} \leq 5.5\text{V}$