

LM4864 Boomer® Audio Power Amplifier Series

725mW Audio Power Amplifier with Shutdown Mode

General Description

The LM4864 is a bridged audio power amplifier capable of delivering 725mW of continuous average power into an 8Ω load with 1% THD+N from a 5V power supply.

Boomer® audio power amplifiers were designed specifically to provide high quality output power from a low supply voltage while requiring a minimal amount of external components. Since the LM4864 does not require output coupling capacitors, bootstrap capacitors or snubber networks, it is optimally suited for low-power portable applications.

The LM4864 features an externally controlled, low power consumption shutdown mode, and thermal shutdown protection.

The closed loop response of the unity-gain stable LM4864 can be configured by external gain-setting resistors. The device is available in multiple package types to suit various applications.

Key Specifications

- P_O at 1% THD+N with $V_{DD} = 5V$, 1kHz
 - LM4864LD, 4Ω load 625mW (typ)
 - LM4864LD, 8Ω load 725mW (typ)
 - LM4864M & LM4864N, 8Ω load 675mW (typ)
 - LM4864MM, 8Ω load (Note 10) 300mW (typ)
 - LM4864, 16Ω load 550mW (typ)
- Shutdown current 0.7μA (typ)

Features

- MSOP, SOP, DIP, and LD packaging
- No output coupling capacitors, bootstrap capacitors, or snubber circuits are necessary
- Thermal shutdown protection circuitry
- Unity-gain stable
- External gain configuration capability

Applications

- Cellular phones
- Personal computers
- General purpose audio

Typical Application

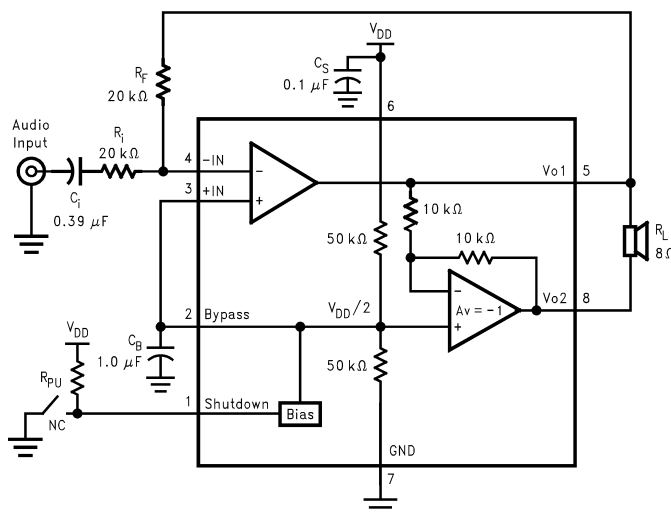
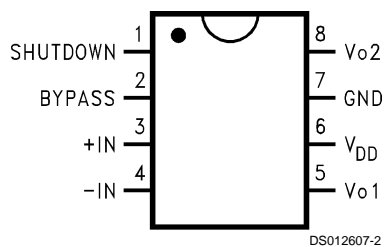


FIGURE 1. Typical Audio Amplifier Application Circuit

Connection Diagrams

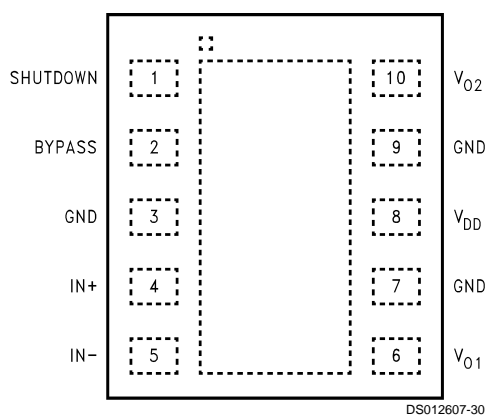
MSOP, SOP, and DIP Package



Top View

Order Number LM4864MM,
LM4864M or LM4864N
See NS Package Number MUA08A,
M08A or N08E

LD Package



Top View

Order Number LM4864LD,
See NS Package Number LDA10A