

2W Stereo Audio Amplifier

Features

- Depop Circuitry Integrated
- Output Power at 1% THD+N, VDD=5V
 - 2.0W/CH (typical) into a 4Ω Load
 - 1.3W/CH (typical) into a 8Ω Load
- Output Power at 10% THD+N, VDD=5V
 - 2.6W/CH (typical) into a 4Ω Load
 - 1.6W/CH (typical) into a 8Ω Load
- Maximum Output Power Clamping Circuitry Integrated
- Bridge-Tied Load (BTL)
- Stereo Input MUX
- Mute and Shutdown Control Available
- Surface-Mount Power Package
24-Pin TSSOP-P & 24-Pin TQFN Available

Applications

- Stereo Power Amplifiers for Notebooks or Desktop Computers
- Multimedia Monitors
- Stereo Power Amplifiers for Portable Audio Systems

General Description

The G1441 is a stereo audio power amplifier in 24pin TSSOP thermal pad package or 24pin TQFN package. It can drive 2W continuous RMS power into 4Ω load per channel in Bridge-Tied Load (BTL) mode at 5V supply voltage. Its THD is smaller than 1% under the above operation condition. The G1441 can mute the speaker output when SE/BTL pin is high. For the low current consumption applications, the SHDN mode is supported to disable the G1441 when it is idle. The current consumption can be further reduced to below 5μA.

The G1441 also supports two input paths, that means two different gain loops can be set in the same PCB and choosing either one by setting IN1/IN2 pin. It enhances the hardware designing flexibility. The G1441 also supports an extra function -- the maximum output power clamping function to protect the speakers from burned-out.

When the G1441 is enable from SHDN mode but still in the mute speaker situation (SE/BTL pin is high), it can produce a delayed logic high signal at SE_CNTL pin. The delay time is determined by additional capacitor CT. It is 300ms when the capacitor CT is 0.1μF. Besides, the logic high voltage level at SE_CNTL pin can be lower than 5V power supply by applying the VDD3 pin suitable voltage.

Ordering Information

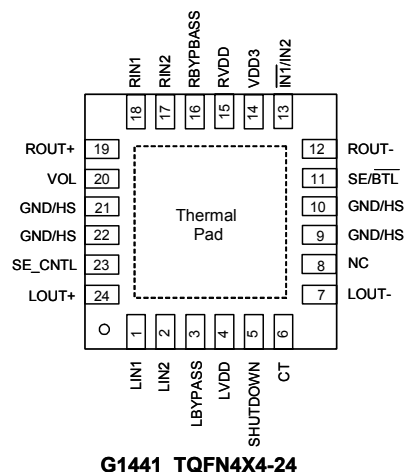
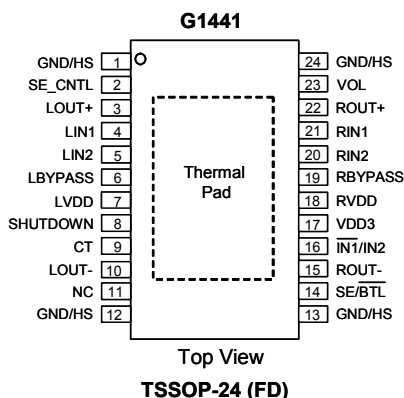
| ORDER NUMBER | MARKING | TEMP. RANGE | PACKAGE (Pb free) |
|--------------|---------|----------------|-------------------|
| G1441F31U | G1441 | -40°C to +85°C | TSSOP-24 (FD) |
| G1441R51U | 1441 | -40°C to +85°C | TQFN4X4-24 |

Note: F3:TSSOP-24 (FD) R5:TQFN4X4-24

1: Bonding Code

U: Tape & Reel

Pin Configuration



Note: Recommend connecting the Thermal Pad to the GND for excellent power dissipation.