

Product Overview

NCP2890: Audio Power Amplifier, 1.0 W

For complete documentation, see the data sheet.



The NCP2890 is an audio power amplifier designed for portable communication device applications such as mobile phone applications. The NCP2890 is capable of delivering 1.0 W of continuous average power to an 8 ohms load from a 5.0 V power supply, and 320 mW to a 4 ohm load from a 2.6 V power supply. The NCP2890 provides high quality audio while requiring few external components and minimal power consumption. It features a low-power consumption shutdown mode, which is achieved by driving the SHUTDOWN pin with logic low. The NCP2890 contains circuitry to prevent from "pop and click" noise that would otherwise occur during turn-on and turn-off transitions. For maximum flexibility, the NCP2890 provides an externally controlled gain (with resistors), as well as an externally controlled turn-on and turn-off times (with the bypass capacitor). Due to its excellent PSRR, it can be directly connected to the battery, saving the use of an LDO. This device is available in the 9-Pin Flip-Chip CSP and the Micro8 package.

Features

- 1.0 W to an 8.0 Ω Load from a 5.0 V Power Supply
- Excellent PSRR: Direct Connection to the Battery
- Pop and Click Noise Protection Circuit
- Ultra Low Current Shutdown Mode
- 2.2 - 5.5 V Operation
- External Gain Configuration Capability
- External Turn-on and Turn-off Time Configuration Capability
- Up to 1.0 nF Capacitive Load Driving Capability
- Thermal Overload Protection Circuitry

Applications

- Audio Amplification

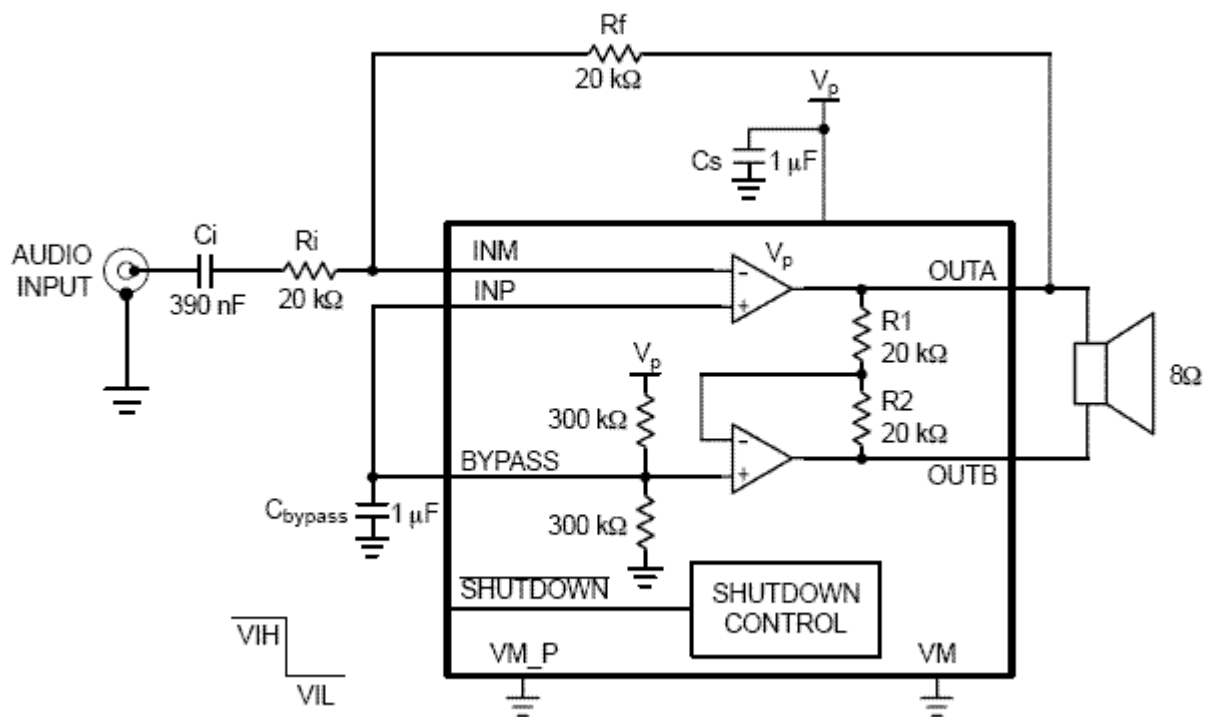
End Products

- Mobile Phones

Part Electrical Specifications

| Product | Pricing (\$/Unit) | Compliance | Status | Class | Output Power Typ (W) | V _{CC} Max (V) | Output Type | t _{on} Typ (ms) | THD + N Typ (%) | I _o Typ (mA) | I _{SD} Typ (nA) | Package Type |
|--------------|-------------------|------------------------|--------|-------|----------------------|-------------------------|-------------|--------------------------|-----------------|-------------------------|--------------------------|--------------|
| NCP2890DMR2G | 0.24 | Pb-free Halide free | Active | AB | 1 | 5.5 | BTL | 285 | 0.02 | 1.5 | 10 | Micro8™ |

Application Diagram



For more information please contact your local sales support at www.onsemi.com.

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