

# AS1701, AS1706

## 1.6W Audio Power Amplifiers

Product Brief

### 1 General Description

The AS1701 and AS1706 are 1.6W bridged audio power amplifiers that provide excellent circuit reliability, providing a very low-cost solution by eliminating external components when used with 2.7 to 5.5V-powered circuits.

The devices have superb total harmonic distortion (THD) at high-power output and excellent power supply rejection with 4- and 8Ω-loads.

Integrated over-temperature and over-current protection circuitry switch the devices off in case of an output short-circuit. A digital input allows the devices to automatically switch into shutdown mode. Click- and pop-suppression circuitry reduces audible clicks and pops during power-up and shutdown. The gain ( $A_v$ ) of the devices is controlled using external resistors.

The AS1701/AS1706 are available in an 8-pin MSOP package.

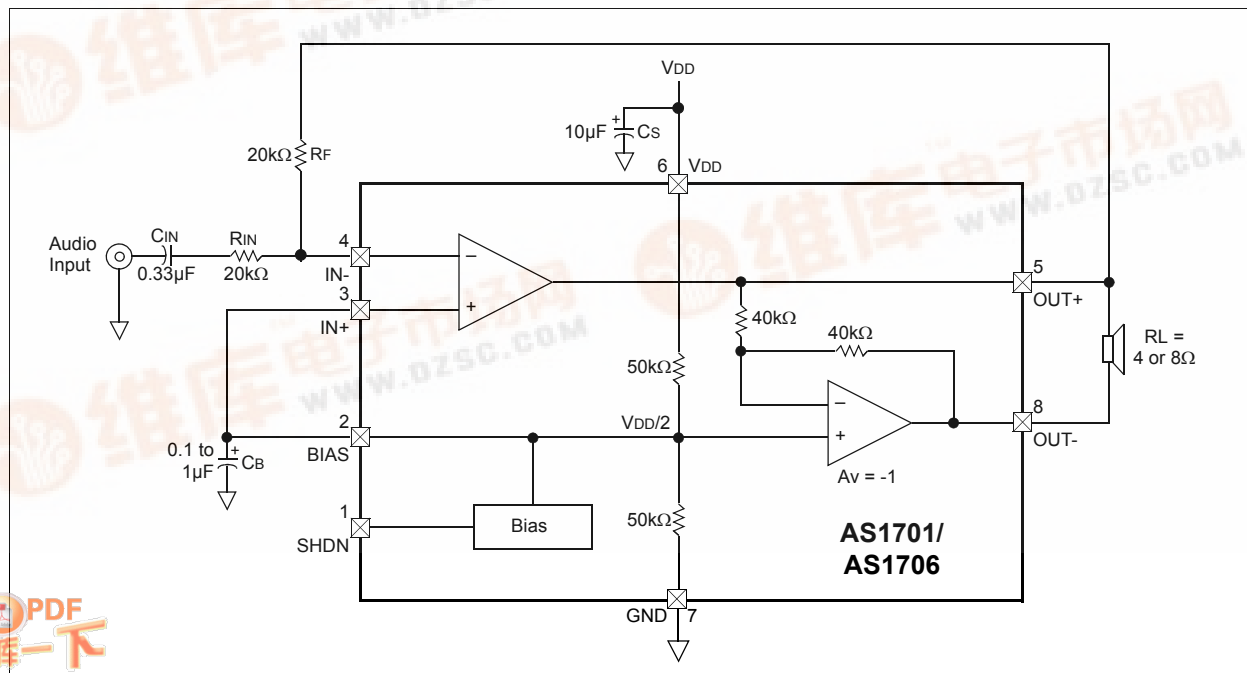
### 2 Key Features

- 2.7 to 5.5V ( $V_{CC}$ ) Single-Supply Operation
- Very High PSRR: Greater Than 65dB @ 217Hz
- THD+Noise: 1.6W into 4Ω at 1%
- No Output Coupling Capacitors Required
- External Gain Configuration Capability
- Low-Power Shutdown Mode: 10nA
- Click and Pop Suppression
- Over-Temperature and Over-Current Protection
- Operating Temperature Range: -40 to +85°C
- 8-pin MSOP Package

### 3 Applications

The AS1701/AS1706 are ideal as audio front-ends for battery powered audio devices such as MP3 and CD players, mobile phones, PDAs, portable DVD players, and any other hand-held battery-powered device.

Figure 1. Typical Configuration Block Diagram



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## Contact Information

### Headquarters

austriamicrosystems AG  
A-8141 Schloss Premstaetten, Austria

Tel: +43 (0) 3136 500 0

Fax: +43 (0) 3136 525 01

e-mail: [info@austriamicrosystems.com](mailto:info@austriamicrosystems.com)

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