

GENERAL DESCRIPTION

The ft690W is a mono Class-AB audio power amplifier designed for demanding applications in mobile phones and other portable media devices. It is capable of delivering 1.3W of continuous output power to an 8Ω BTL load with less than 1% distortion (THD+N) from a 5VDC power supply.

The ft690W is specifically designed to provide high quality output power with a minimal number of external components. The ft690W does not require output coupling capacitors or bootstrap capacitors, and is therefore ideal for use in mobile phones and other low voltage applications where minimal power consumption is a primary requirement.

The ft690W features a low-power shutdown mode. In the shutdown mode where a logic low is applied onto the \overline{SD} pin, the amplifier is completely turned off and no supply current will flow through the device.

The ft690W contains advanced pop & click circuitry which eliminates noise which would otherwise occur during turn-on and turn-off transitions.

The ft690W is unity-gain stable and can be configured by external gain-setting resistors.

APPLICATION CIRCUIT

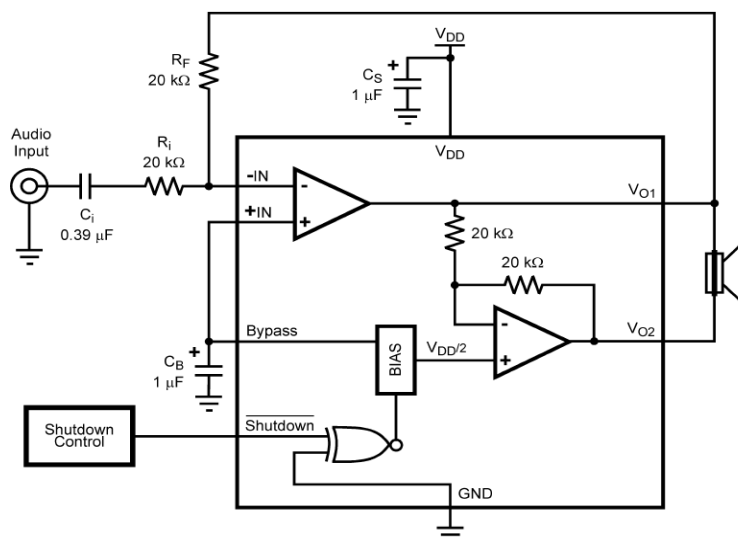


Figure 1: Typical Audio Amplifier Application Circuit

FEATURES

- Ultra low current in shutdown mode
- Ultra low quiescent current
- Improved pop & click circuitry eliminates noise during turn-on and turn-off transitions
- Supports both single-end and differential inputs
- Wide operating voltage range: 2.5 ~ 5.5V
- No output coupling capacitors, snubber networks or bootstrap capacitors required
- External gain configuration capability
- Available in space-saving package: WCSP-9L

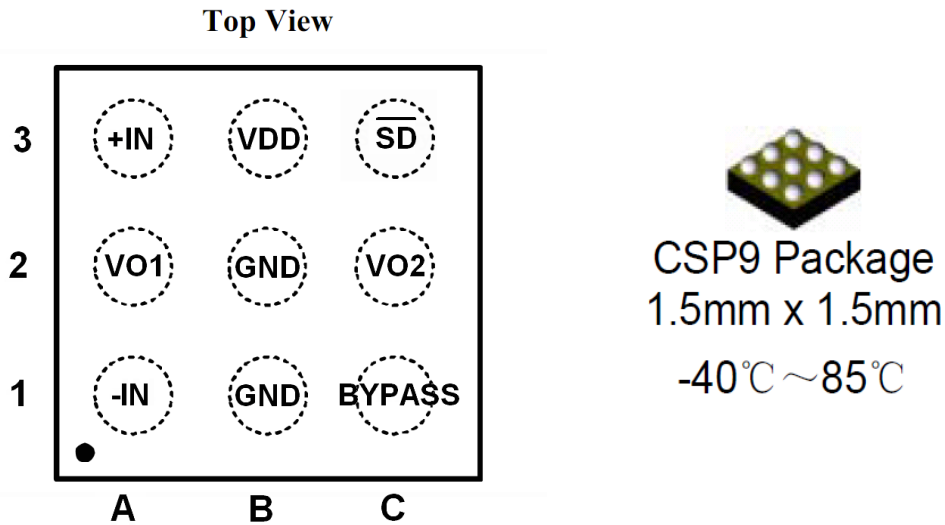
KEY SPECIFICATIONS

- Improved PSRR at 217Hz : 66dB
- Power output at 5V, 1% THD+N, 8Ω: 1.3W
- Power output at 3V, 1% THD+N, 8Ω: 0.48W
- Quiescent current 1.6mA (VDD=3V)

APPLICATIONS

- Mobile phone
- PDA
- Portable electronic devices

PIN CONFIGURATION AND PIN DESCRIPTION



SYMBOL	PIN DESIGNATION	DESCRIPTION
VDD	B3	Power supply
\overline{SD}	C3	Active low shutdown control
-IN	A1	Negative differential input
+IN	A3	Positive differential input, connect to BYPASS pin
VO1	A2	Negative BTL output
VO2	C2	Positive BTL output
BYPASS	C1	Bypass capacitor pin which provides the common mode voltage
GND	B1 & B2	Ground

ORDERING INFORMATION

P/N	TEMP RANGE	PACKAGE	GAIN (dB)
ft690W	-40°C to +85	WCSP1.5X1.5-9	Adjustable