



New Product Announcement

PAM8408

2x3W Stereo Class-D Audio Amplifier with Memory Up/Down Volume Control

The PAM8408 is a filter-less Class-D amplifier with high SNR and differential input that helps eliminate noise. Advanced 32-step Up/Down volume control minimizes external components and allows speaker volume control. The gain will hold when the chip is in shutdown mode.

The PAM8408 supports 2.5V to 6V operation making it suitable for up to four cell alkaline battery applications.

Features such as >87% efficiency and small PCB area make the PAM8408 Class-D amplifier ideal for portable applications.

Its filter-less architecture minimizes the number of external components used and reduces PCB area - providing a high performance, simple and cost effective system.

It provides short circuit protection and thermal shutdown with built in auto recovery.

The PAM8408 is available in SO-16 package



The Diodes Advantage

The PAM8408 provides a highly integrated solution for low power speakers.

- **Integrated 32-step memory up/down volume control**
Minimizes external components and allows speaker volume control to save the BOM cost. The volume will keep when the chip is recover from shutdown.
 - **Fully differential input**
Low noise, high PSRR and good THD performance.
 - **Extended operating voltage; up to 6V**
Operates from single Li-on cell and up to 4 cells alkaline battery.
 - **As low as 3Ω low speaker load driving capability**
Higher output power from low voltage rails
 - **VDD over-voltage, UVLO and over temperature protection**
Full protection with auto re-start
- SO-16 low pin count package**
Easy to mount and small PCB area

Applications

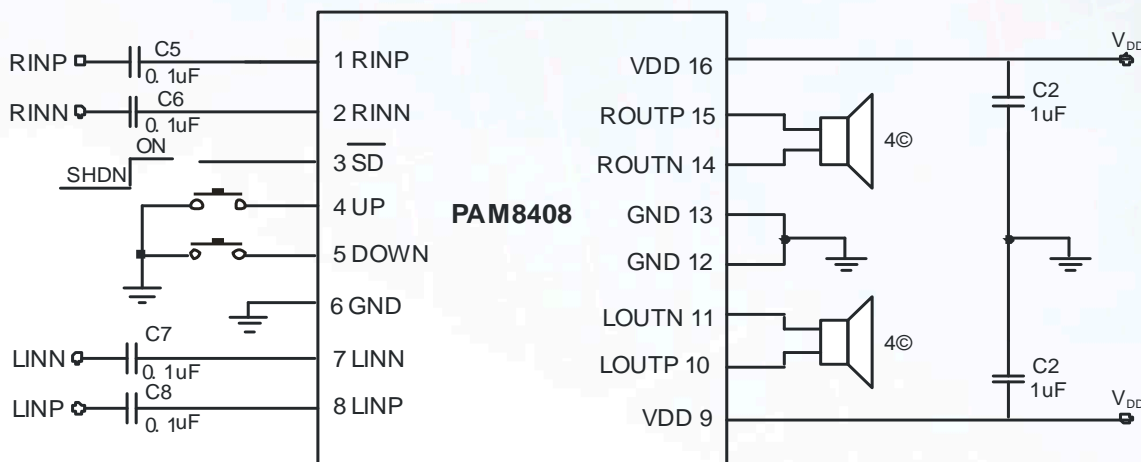
- PC Speakers
- Active Speakers
- Wireless Speaker
- Docking stations



New Product Announcement

PAM8408

Typical Application:



Diodes Medium Power Class-D Audio Amplifier

Product	Description	VIN (V)	IQ (mA)	η	GAIN (dB)	SNR (dB)	PSRR (dB)	Packaging
PAM8301	1x1.5W with EN Control	2.5 - 5.5	4	88%	24	78	-50	SOT23-6
PAM8302L	1x2.5W Low VDD Class D Amplifier	2.0 - 5.5	4	88%	24	80	-50	DFN3*3-8 MSOP-8
PAM8303C PAM8303D	1x3W VDD Class D Amplifier with Differential Input	2.8 - 5.5	5	90%	300k ω /Ri	80	-65	WCSP-9 MSOP-8
PAM8304	1x3W VDD Class D Amplifier with Differential Input	2.8 - 6.0	5	90%	300k ω /Ri	95	-70	DFN3*3-8 MSOP-8
PAM8407	2x3W Stereo Differential Input Class D Audio Amplifier with Up/Down Volume Control	2.5 - 6.0	8	87%	24	95	-70	SO-16
PAM8408	2x3W Stereo Differential Input Class D Audio Amplifier with Memory Up/Down Volume Control	2.5 - 6.0	8	87%	24	95	-70	SO-16
PAM8012	1x3W with PL & Anti-saturation	2.8-5.5	10	89%	-99	90	-70	CSP1.2x1.2

Ordering Information

Device	Packaging	Part mark	Reel size	Tape width	Quantity
PAM8408DR	SO-16L	PAM8408	13"	16mm	2500