



Product news

10W Stereo Class-D Audio Power Amplifier with SSM and NCPL from Diodes Incorporated Targets Wireless Media Speakers

Plano, Texas – May 9, 2018 – Featuring low THD+N, low EMI and high PSRR, the PAM8106 is a 10W stereo Class-D audio amplifier that integrates spread-spectrum modulation (SSM) and non-clipping power limit (NCPL) technology to deliver advanced features for a range of battery- or line-powered devices including LCD TVs, wireless speakers, portable stereos, and game machines.

The PAM8106 operates from a wide input voltage range (4.5V to 15V) and is capable of driving both 8Ω and 4Ω speakers, which are popular in portable speaker applications. Its high efficiency of up to 92% minimizes heat generation, removing the need to for heat-sink hence avoiding the cost, weight and space associated with adding a heat-sink in the final application. With a low quiescent current of just 15mA, the PAM8106 is well-suited for Li+ or alkaline battery-driven portable speakers, enabling longer audio enjoyment with better sound quality.

As a result of its advanced EMI suppression, achieved through the integration of SSM technology, audio devices based on the PAM8106 can avoid the need for expensive filters on the audio outputs and instead use inexpensive ferrite bead filters, delivering further system cost reductions while still meeting EMC requirements.

The PAM8106 also features NCPL technology, which automatically adjusts the gain to eliminate clipping at the output signal due to high-level input signals. The PAM8106 also offers low THD+N to provide further speaker protection. Additional protection integrated into the device protects against faults caused by short circuits, and thermal shutdown, undervoltage and DC input protection is also integrated.

The PAM8106 is available in a QFN5x5-32L package in quantities of 1000 priced at \$0.50 per unit.

Further information is available at www.diodes.com

PR ref: DI0905

About Diodes Incorporated

Diodes Incorporated (Nasdaq: DIOD), a Standard and Poor's SmallCap 600 and Russell 3000 Index company, is a leading global manufacturer and supplier of high-quality application specific standard products within the broad discrete, logic, analog and mixed-signal semiconductor markets. Diodes serves the consumer electronics, computing, communications, industrial, and automotive markets. Diodes' products include diodes, rectifiers, transistors, MOSFETs, protection devices, function-specific arrays, single gate logic, amplifiers and comparators, Hall-effect and temperature sensors, power management devices, including LED drivers, AC-DC converters and controllers, DC-DC switching and linear voltage regulators, and voltage references along with special function devices, such as USB power switches, load switches, voltage supervisors, and motor controllers. Diodes also has timing, connectivity, switching, and signal integrity solutions for high-speed signals. Diodes' corporate headquarters and Americas' sales office are located in Plano, Texas and Milpitas, California. Design, marketing, and engineering centers are located in Plano; Milpitas; Taipei, Taiwan; Taoyuan City, Taiwan; Zhubei City, Taiwan; Manchester, England; and Neuhaus, Germany. Diodes' wafer fabrication facility is located in Manchester, with an additional facility located in Shanghai, China. Diodes has assembly and test facilities located in Shanghai, Jinan, Chengdu, and Yangzhou, China, as well as in Hong Kong, Neuhaus and Taipei. Additional engineering, sales, warehouse, and logistics offices are located in Taipei; Hong Kong; Manchester; Shanghai; Shenzhen, China; Seongnam-si, South Korea; and Munich, Germany, with support offices throughout the world.

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