198 Stauffer Blvd., San Jose, CA 94125 Tel: (408) 995-6200 Fax: (408) 938-5580

NJR Corporation Introduces New Audio Power Amplifier

Reprint from Electronic Design, May 30, 1995 issue

NEW PRODUCTS

ANALOG

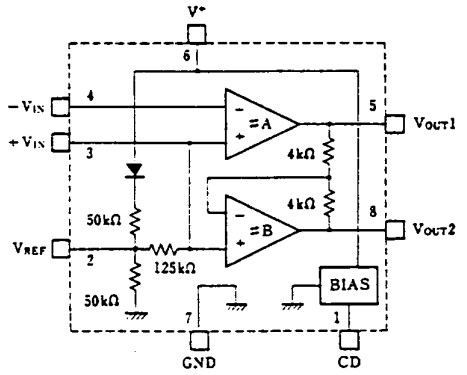
LOW-POWER AUDIO AMPLIFIER TARGETS TELECOMMUNICATIONS

Designed for speakerphones and other systems powered directly by the telephone lines, the NJM2113 low-voltage audio power amp eliminates the need for an external power supply. The chip has an operating voltage range of 2 to 16 V, suiting it for applications where small speakers must be driven, such as speakerphones. The amp's quiescent operating current is just 2.7 mA, and power-down quiescent current drops to 72 μA when the chip is put in standby. Up to 250 mW can be delivered to the speaker, assuring good volume. Total harmonic distortion is just 0.5% typical. To use the chip in a differential connection to a speaker, no capacitors are required—only two resistors are needed to set the closed-loop gain of the amp. Several capacitors are needed to reduce noise on the power-supply lines. Output load impedances can range from 8 to 200 Ω, and the amp can drive either dynamic- or piezo-type speakers. A power-down pin on the NJM2113 allows the use of a mute signal to power the device down. This can be especially beneficial in systems that run off a battery because the muting signal helps extend the battery life. Samples of the NJM2113 are available now and designers can select from four package options—a shrink 8-lead small-output package, a standard SO package, an 8-lead miniDIP, or an 8-lead in-line vertical package. In lots of 100 units, the amp sells for about $2 each.

NJR Corp., 340B East Middlefield Rd., Mountain View, CA 94043; (415) 961-3901. CIRCLE 707

■ *DAVE BURSKY*

■ Block Diagram



■ Application Circuit