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# United States Patent [19]

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## [54] AMPLIFIER CIRCUIT AND METHOD

[75] Inventors: **Gabriel A. Rincon**, Margate, Fla.;  
**Nicolas Salamina**; **Marco Corsi**, both  
of Dallas, Tex.

[73] Assignee: **Texas Instruments Incorporated**,  
Dallas, Tex.

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H03G 3/45; G05F 3/16

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315, 316, 317; 330/252, 255, 257, 288

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*Primary Examiner*—Timothy P. Callahan

*Assistant Examiner*—Trong Phan

*Attorney, Agent, or Firm*—Paul C. Hashim; W. J. Brady, III;  
R. L. Donaldson

## [57] ABSTRACT

An amplifier circuit (10) is provided. Amplifier (10) has an amplifier stage (14) that is coupled to control an output stage (18). Output stage (18) includes a sourcing circuit (20) and a sinking circuit (22). Output stage (18) also includes a mirror circuit (42) that is coupled to an output of amplifier stage (14). Output stage (18) also includes a current balancing circuit (30) coupled to mirroring circuit (42) and sourcing circuit (20). Mirroring circuit (42) draws current from balancing circuit (30) in response to a first predetermined output from amplifier stage (14) such that balancing circuit (30) causes an insignificant current to flow in sourcing circuit (20). Thus amplifier (10) operates to sink current from an external load (12). Alternatively, mirroring circuit (42) may draw an insignificant current from balancing circuit (30) in response to a second predetermined output of the amplifier stage (14). This causes a significant current flow in sourcing circuit (20).

**20 Claims, 2 Drawing Sheets**















