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United States Patent [19] Rincon-Mora

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[54] OPTIMIZED FREQUENCY SHAPING CIRCUIT TOPOLOGIES FOR LDOs

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323/280

[58] Field of Search 323/273, 280;
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[57] ABSTRACT

A low drop-out regulator **16** includes an error amplifier **18** having a first input for receiving a reference voltage V_{ref} , a second input, and an output, a pass element **22** having a control terminal coupled to the output of the error amplifier and a current path coupled between an input voltage V_{in} and an output terminal V_{out} , and a pair of resistors **24**, **26** coupled in series between the output terminal V_{out} and ground. The second input of the error amplifier **18** coupled to a node B between the pair of resistors. The error amplifier provides an added pole/zero pair in the frequency response of the regulator.

4 Claims, 4 Drawing Sheets



