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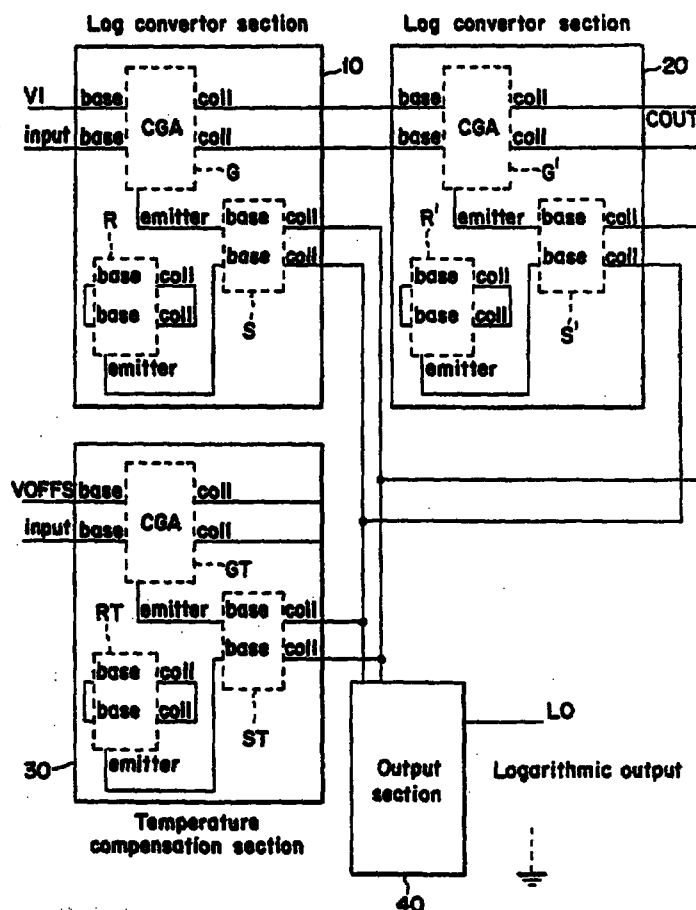
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(54) Title: TEMPERATURE COMPENSATED LOGARITHMIC CONVERTOR

(57) Abstract

A logarithmic convertor based on a nonlinear successive detection principle has a temperature-compensated biasing arrangement and a large operating range due to a d.c. feedback network for offset reduction and an attenuating input stage permitting large input voltages. The log convertor exploits the exponential relationship between the collector current and base-emitter voltage of a bipolar transistor to render the convertor insensitive to temperature and process parameter variations. The converter is a cascade of sections, each having a constant-gain differential amplifier having a particularized current source. The constant-gain amplifier may include a Darlington differential pair, and the current sources have outputs that are either temperature-independent or proportional to temperature.



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