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# United States Patent [19] Rincon-Mora

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[54] **EXACT CURVATURE-CORRECTING METHOD FOR BANDGAP CIRCUITS**

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### [57] **ABSTRACT**

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A curvature corrected bandgap reference voltage circuit, the output voltage of which is substantially linear and independent of the operating temperature of the circuit. The circuit includes a voltage divider network comprised of a first resistor and a second resistor connected in series. A first compensating circuit provides a first, linear, operating temperature-dependent current, and a second compensating circuit provides a second, logarithmic, operating temperature-dependent current. The first current is supplied to the first resistor of said voltage divider network, while the second current is supplied to the second resistor of the voltage divider network.

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[51] **Int. Cl.**<sup>7</sup> ..... **G05F 3/02**

[52] **U.S. Cl.** ..... **327/539; 327/513**

[58] **Field of Search** ..... 323/312, 313, 323/314, 315; 327/512, 513, 539, 540, 541, 543

### [56] **References Cited**

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**6 Claims, 3 Drawing Sheets**



















