

Title (en)
Constant current source

Title (de)
Konstantstromquelle

Title (fr)
Source de courant constante

Publication
EP 0731403 A2 19960911 (EN)

Application
EP 96301270 A 19960226

Priority
US 39907995 A 19950308

Abstract (en)
A current source for generating a current that is relatively stable over variations in the power supply voltage and temperature, and over variations in process parameters is disclosed. The current source includes a bias circuit, for producing a compensating bias voltage, and a current mirror. The bias circuit utilizes a voltage divider to generate a divided voltage based on the power supply value. The divided voltage is applied to the gate of a modulating transistor (biased in saturation) in a first current mirror, which controls a current applied to a linear load device. The voltage across the load device determines the bias voltage, which is in turn applied to the gate of a transistor in the reference leg of a second current mirror. The bias voltage controls the current in the reference leg of the second current mirror, and an output leg mirrors the second reference current to produce a stable output current. <IMAGE>

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G05F 3/26

IPC 8 full level
G05F 3/26 (2006.01); **H03F 3/343** (2006.01); **H03F 3/347** (2006.01)

CPC (source: EP)
G05F 3/262 (2013.01)

Cited by
US8054111B2; US8179170B2; US8872572B2; US9368519B2; US9830878B2; US9934747B2; US10181304B2; US10446103B2; US10902814B2; US11545105B2; US11984093B2

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