Title (en)

Process and device for generating a temperature independent current

Title (de)

Verfahren und Vorrichtung zur Erzeugung eines temperaturunabhängigen Stroms

Title (fr)

Procédé et dispositif de génération d'un courant indépendant de la température

Publication

EP 1164455 B1 20060531 (FR)

Application

EP 00202059 A 20000613

Priority

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Abstract (en)

[origin: EP1164455A1] A generator produces a first current (11), proportional to first temperature stable input voltage (Vin), through electrodes (12a,12b) of a first transistor (12). A weak inversion amplifier (11) produces a temperature dependent offset voltage (Vos(T)) between its inputs (11a,11b). This offset voltage and the input voltage (Vin) are adjusted to compensate resistance (13) temperature dependence so that the current generated (11) is temperature independent. Method of current (11) generation by means of a current generator circuit (10) connected to first and second supply voltages (Vss, Vdd): (a) an amplifier (11) provides a first control voltage at its output (11c) in response to a difference between the first and second voltages applied to respective inputs (11a,11b); a first transistor (12) having a first current electrode (12a), a control electrode (12c), connected to the amplifier output (11c), and a second current electrode (12b) connected to the voltage (Vdd), and; a resistive component (13) having a terminal connected to the amplifier input (11b) as well as to the transistor current electrode (12a) and a terminal the first voltage (Vss). The resistive component has a resistance value (R(T)) which is temperature dependent

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