

Title (en)
Integrated circuit current source

Title (de)
Integrierte Stromquellenschaltung

Title (fr)
Source de courant en circuit intégré

Publication
EP 0800131 A1 19971008 (FR)

Application
EP 97400761 A 19970402

Priority
FR 9604262 A 19960404

Abstract (en)
The circuit is based on a p-channel MOS transistor (2) biased to saturation by a Zener diode (DZ) whose breakdown voltage (VZ) is not less than the supply voltage (Vcc) applied via a charge pump (PC). This transistor delivers a reference current (Iref), which is substantially independent of temperature, to an n-channel MOS transistor (3) connected as a diode. The reference current is easily divided by 100 or 1000 in two successive current mirrors using transistors (5,4;6,8) of very reasonable size. The capacitor (C) may be charged under the control of a circuit (7) ensuring the desired durations of step and ramp voltage.

Abstract (fr)
Une source de courant en circuit intégré, alimentée en haute tension HV, comprend une diode Zener DZ à tension zener supérieure ou égale à la tension d'alimentation logique Vcc du circuit intégré, de manière à polariser en saturation un transistor MOS 2. Le circuit particulièrement simple de l'invention fournit un courant stable en température. <IMAGE>

IPC 1-7
G05F 3/18

IPC 8 full level
G05F 3/18 (2006.01)

CPC (source: EP)
G05F 3/185 (2013.01)

Citation (search report)
• [A] US 4404477 A 19830913 - CHAO ROBERT L [US]
• [A] KUO C ET AL: "A 512KB FLASH EEPROM FOR A 32 BIT MICROCONTROLLER", PROCEEDINGS OF THE SYMPOSIUM ON VLSI CIRCUITS, OISO, JP., MAY 30 - JUNE 1, 1991, no. SYMP. 5, 30 May 1991 (1991-05-30), INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS, pages 87 - 88, XP000299480

Cited by
EP2722727A1; FR2994750A1; US9772647B2

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