

Title (en)

Current mirror with base current compensation.

Title (de)

Stromspiegel mit Basisstromkompensation.

Title (fr)

Miroir de courant avec compensation du courant de base.

Publication

EP 0443239 A1 19910828 (EN)

Application

EP 90309886 A 19900910

Priority

US 48188290 A 19900220

Abstract (en)

A current mirror circuit with master (T1) and slave bipolar transistors (T2, T3) has an insulated gate field effect transistor (FET) (M1) connected across the collector-base circuit of the master transistor (T1) to provide base compensation current for the various bipolar transistors (T1, T2, T3). The FET (M1) is scaled so that the collector-emitter voltage of the master transistor (T1) is set at a value at which it operates in the vicinity of its saturated region, and the collector-base voltages of the master (T1) and slave transistors (T2, T3) are generally equal. This results in an accurate mirroring of the master transistor (T1) current, while the current through the master transistor (T1) is itself preserved at the desired reference level because the FET (M1) does not draw any gate current away from the master transistor (T1). <IMAGE>

IPC 1-7

G05F 3/26

IPC 8 full level

G05F 3/26 (2006.01); **H03F 3/343** (2006.01)

CPC (source: EP)

G05F 3/267 (2013.01)

Citation (search report)

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