

Title (en)

FORWARD BODY BIAS TRANSISTOR CIRCUITS

Title (de)

TRANSISTOR-SCHALTUNGEN MIT SUBSTRAT-VORWÄRTSVORSPANNUNG

Title (fr)

CIRCUITS DE TRANSISTOR A CORPS POLARISE EN SENS DIRECT

Publication

**EP 1012971 A1 20000628 (EN)**

Application

**EP 98930284 A 19980616**

Priority

- US 9812523 W 19980616
- US 88004797 A 19970620
- US 7843298 A 19980513
- US 7842498 A 19980513
- US 7839598 A 19980513
- US 7838898 A 19980513

Abstract (en)

[origin: WO9859419A1] Under one aspect of the invention, a semiconductor circuit (50) includes a first group of field effect (FET) transistors (60 and 62) of a first type (p-type) each having a body and a gate. The circuit includes a second group of field effect (FET) transistors (54 and 56) of a second type (n-type) each having a body and a gate. The circuit includes a first voltage source to selectively provide a forward bias to the bodies of the first group of FET transistors (60 and 62) during a first mode and to provide a non-forward bias to the bodies of the first group of FET transistors (60 and 62) during a second mode, and while in the first mode, the forward bias (68) is applied to the bodies of the first group of FET transistors (60 and 62) independent of voltages (A and B) applied to the gates of the first group of FET transistors (60 and 62). Under another aspect of the invention, a circuit (310) includes p-channel field effect transistors (pFET transistors) having n-type bodies electrically coupled to the ground voltage node to forward body bias the pFET transistors. A circuit includes N-channel field effect transistors (nFET transistors) having p-type bodies electrically coupled to the supply voltage node to forward body bias the nFET transistors.

IPC 1-7

**H03K 3/01**

IPC 8 full level

**H01L 27/092** (2006.01); **H01L 29/10** (2006.01); **H03K 19/0948** (2006.01)

CPC (source: EP)

**H01L 27/0928** (2013.01); **H01L 29/1087** (2013.01); **H03K 19/0948** (2013.01); **H03K 2217/0018** (2013.01)

Designated contracting state (EPC)

DE FR GB

DOCDB simple family (publication)

**WO 9859419 A1 19981230**; AU 7970898 A 19990104; CN 1196263 C 20050406; CN 1267406 A 20000920; EP 1012971 A1 20000628; EP 1012971 A4 20000920

DOCDB simple family (application)

**US 9812523 W 19980616**; AU 7970898 A 19980616; CN 98808294 A 19980616; EP 98930284 A 19980616