

Title (en)
SUBSTRATE BIAS REGULATOR

Publication
EP 0015342 B1 19840125 (EN)

Application
EP 79302875 A 19791212

Priority
US 1752379 A 19790305

Abstract (en)
[origin: EP0015342A1] A substrate bias regulator 11 useful for controlling a variable output oscillator 12 and/or a substrate bias voltage generator 13 is provided to control the substrate voltage on a semiconductor chip 10. A series of field effect transistors are arranged in a manner to sense the substrate voltage and to provide an output to regulate the substrate voltage. One of the series field effect transistors 16, 32 has its gate electrode connected to reference potential ground which tends to make the regulator independent of transistor thresholds.

IPC 1-7
G05F 3/20

IPC 8 full level
G05F 3/20 (2006.01); **G11C 11/407** (2006.01); **H01L 21/822** (2006.01); **H01L 27/04** (2006.01); **H01L 29/78** (2006.01)

CPC (source: EP)
G05F 3/205 (2013.01)

Citation (examination)
US 4260909 A 19810407 - DUMBRI AUSTIN C, et al

Cited by
US5670907A; EP0293045A1; US5233289A; EP0143879A1; FR2555774A1; GB2151823A; EP0032588B1

Designated contracting state (EPC)
DE FR GB

DOCDB simple family (publication)
EP 0015342 A1 19800917; EP 0015342 B1 19840125; DE 2966592 D1 19840301; JP S55120158 A 19800916

DOCDB simple family (application)
EP 79302875 A 19791212; DE 2966592 T 19791212; JP 2518580 A 19800229