(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) Publication number : **0 609 009 A3**

(12) EUROPEAN PATENT APPLICATION

(21) Application number : **94300383.0**

(22) Date of filing : **19.01.94**

(51) Int. Cl.[5] : **G05F 1/56,** G05F 3/24

(30) Priority : **28.01.93 US 10380**

(43) Date of publication of application :
03.08.94 Bulletin 94/31

(84) Designated Contracting States :
DE FR GB IT

(88) Date of deferred publication of search report :
02.11.94 Bulletin 94/44

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(54) Dual gate JFET circuit to control threshold voltage.

(57) A monolithic integrated circuit includes a plurality of dual gate junction field effect transistors. One is selected as a standard transistor and its current is passed through a first resistor. A reference current is passed through a second resistor. The two resistors are coupled to the inputs of an op-amp, the output of which is coupled to one gate of the standard transistor. The other gate of the standard transistor is supplied with a bias voltage selected to operate the transistor in the conducting mode. Thus, the standard transistor forms a negative feedback loop around the op-amp. As a result, the standard transistor will pass a current related to the reference current in a ratio determined by the ratio of the resistor values. The op-amp output can then be coupled to the other gates in all of the other transistors in the integrated circuit. Accordingly, all of the transistors will have their operating currents the same as that of the standard transistor at the same operating bias. This means that all of the transistors display the same effective threshold voltage.

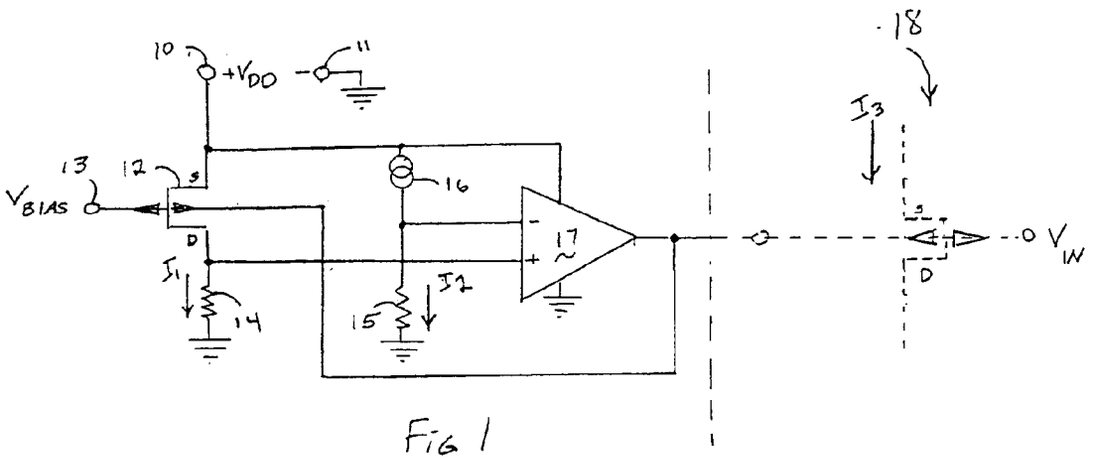

Fig 1

EP 0 609 009 A3

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EUROPEAN SEARCH REPORT

Application Number
EP 94 30 0383

DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.5)
A,P	EP-A-0 531 101 (TRIQUINT SEMICONDUCTOR INC.) * page 1, line 3 - page 4, line 18 *	1,2	G05F1/56 G05F3/24
A	EP-A-0 375 124 (TEKTRONIX INC.) * column 3, line 4 - column 5, line 13 *	1,2	
A	EP-A-0 446 595 (TEXAS INSTRUMENTS INC.) * page 2, paragraph 1 -last paragraph *	1,2	
			TECHNICAL FIELDS SEARCHED (Int.Cl.5) G05F

The present search report has been drawn up for all claims

Place of search	Date of completion of the search	Examiner
THE HAGUE	7 September 1994	Schobert, D

CATEGORY OF CITED DOCUMENTS

X : particularly relevant if taken alone
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