

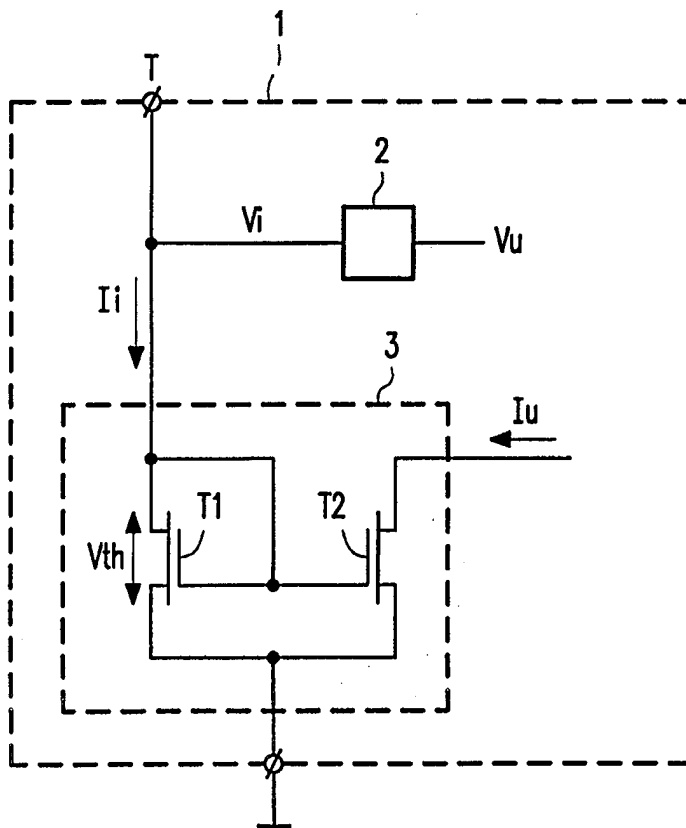


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(21) International Application Number: PCT/IB98/00249 (22) International Filing Date: 27 February 1998 (27.02.98) (30) Priority Data: 97200856.9 21 March 1997 (21.03.97) EP (34) Countries for which the regional or international application was filed: NL et al. (71) Applicant: KONINKLIJKE PHILIPS ELECTRONICS N.V. [NL/NL]; Groenewoudseweg 1, NL-5621 BA Eindhoven (NL). (71) Applicant (for SE only): PHILIPS NORDEN AB [SE/SE]; Kottbygatan 7, Kista, S-164 85 Stockholm (SE). (72) Inventors: PANSIER, Frans; Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL). MARINUS, Antonius, Adrianus, Maria; Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL). BUTHKER, Henricus, Cornelis, Johannes; Prof. Holstlaan 6, NL-5656 AA Eindhoven (NL). (74) Agent: GROENENDAAL, Antonius, W., M.; Internationaal Octrooibureau B.V., P.O. Box 220, NL-5600 AE Eindhoven (NL).	(81) Designated States: JP, European patent (AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE). Published <i>With international search report.</i> <i>Before the expiration of the time limit for amending the claims and to be republished in the event of the receipt of amendments.</i> (88) Date of publication of the international search report: 28 January 1999 (28.01.99)	

(54) Title: CURRENT AND VOLTAGE SENSING**(57) Abstract**

An integrated circuit (1) comprises a voltage sensing circuit (2) and a current mirror (3) for sensing both a voltage (V_i) and a current (I_i) at one input terminal (T) of the integrated circuit. The voltage sensing circuit (2) comprises an input connected to the input terminal (T) and an output supplying a voltage level indication (V_u). The current mirror (3) has an input also connected to the input terminal (T), a reference terminal connected to a reference potential, and an output supplying an output current (I_u). The input of the current mirror has a high impedance as long as the voltage level (V_i) is below a threshold voltage (V_{th}) of the current mirror (3). Within a voltage range determined by this threshold voltage (V_{th}), the voltage level indication (v_u) is a measure of the voltage level (V_i). The current mirror (3) becomes active and the output current (I_u) is a mirrored input current (I_i) if the voltage level (V_i) exceeds the threshold voltage (V_{th}). The threshold voltage may be determined by an input transistor (T1) of the current mirror (3). This input transistor (T1), which is arranged as a diode, starts conducting if the voltage level (V_i) reaches the threshold voltage (V_{th}) of this diode.



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INTERNATIONAL SEARCH REPORT

International application No.

PCT/IB 98/00249

A. CLASSIFICATION OF SUBJECT MATTER		
IPC6: G01R 19/02, H02M 3/335 According to International Patent Classification (IPC) or to both national classification and IPC		
B. FIELDS SEARCHED		
Minimum documentation searched (classification system followed by classification symbols)		
IPC6: G01R, H02M		
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched		
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C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5369308 A (F.A.C.M. SCHOOF ET AL.), 29 November 1994 (29.11.94), figure 1, abstract --	1-6
A	US 5378936 A (N. KOKUBO ET AL.), 3 January 1995 (03.01.95), figure 1, abstract --	1-6
A	US 4648016 A (G. PERUTH ET AL.), 3 March 1987 (03.03.87), figures 1,3, abstract --	1-6
A	US 5138201 A (S. OHBAYASHI ET AL.), 11 August 1992 (11.08.92), figure 1, abstract -- -----	1-6
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Information on patent family members

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