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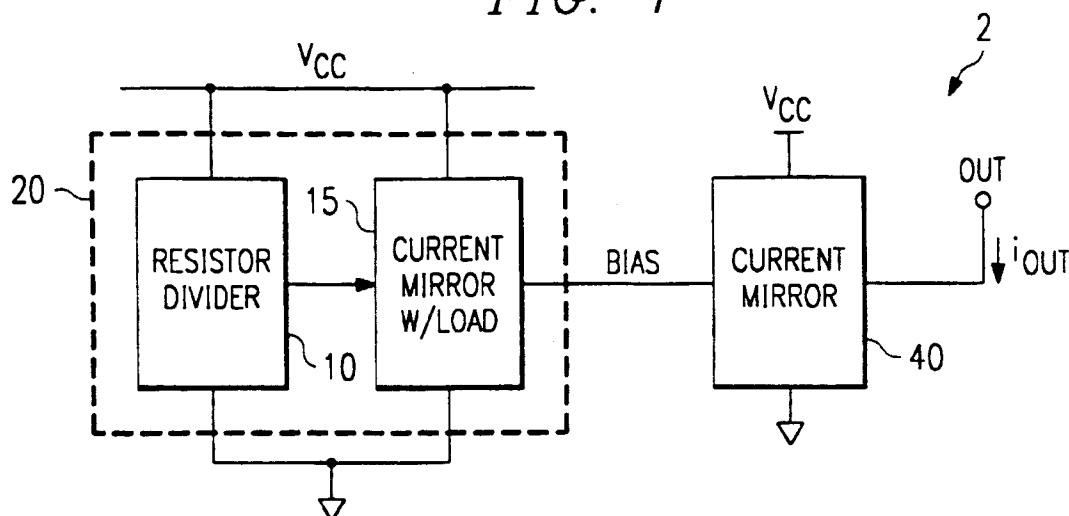
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(54) Constant current source

(57) A current source for generating a current that is relatively stable over variations in the power supply voltage and temperature, and over variations in process parameters is disclosed. The current source includes a bias circuit, for producing a compensating bias voltage, and a current mirror. The bias circuit utilizes a voltage divider to generate a divided voltage based on the power supply value. The divided voltage is applied to the gate

of a modulating transistor (biased in saturation) in a first current mirror, which controls a current applied to a linear load device. The voltage across the load device determines the bias voltage, which is in turn applied to the gate of a transistor in the reference leg of a second current mirror. The bias voltage controls the current in the reference leg of the second current mirror, and an output leg mirrors the second reference current to produce a stable output current.

FIG. 1



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EUROPEAN SEARCH REPORT

Application Number
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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.6)
Y	US 3 714 543 A (SAHARA M ET AL) 30 January 1973 * column 2, line 5 - column 4, line 67; figure 3 *	1-4,12,14	G05F3/26
A	---	5-11,13,15	
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A	EP 0 536 063 A (SGS THOMSON MICROELECTRONICS) 7 April 1993 * the whole document *	1-15	
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The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 23 April 1997	Examiner Lampe, S
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document		T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document	

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