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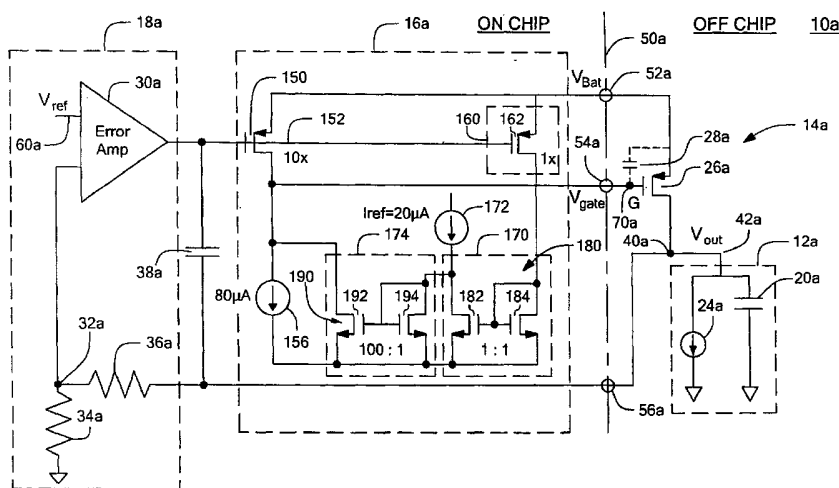
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 - (71) Applicant: **ANALOG DEVICES, INC.** [US/US]; Three Technology Way, Norwood, MA 02062 (US).
 - (72) Inventors: **HO, Stacy**; 7733 Louis Pasteur Drive Apartment 433, San Antonio, TX 78229 (US). **BARBER, Thomas, J., Jr.**; 26 Farm Road, Bolton, MA 01740 (US).
 - (74) Agents: **SHANSKE, Jason, D.** et al.; Iandiorio & Teska, 260 Bear Hill Road, Waltham, MA 02451-1018 (US).
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(54) Title: VOLTAGE REGULATOR WITH DYNAMICALLY BOOSTED BIAS CURRENT



(57) Abstract: A voltage regulator with dynamically boosted bias current includes a pass device (14a) for providing current to a load (12a); an error circuit responsive to a difference between a predetermined reference voltage and a function of the voltage on the load (12a) to produce an error signal, a driver circuit (16a) responsive to the error signal for controlling the pass device (14a) to adjust the current to the load (12a) to reduce the error signal, the driver circuit (16a) including an amplifier (30a) responsive to the error signal for controlling the pass device (14a), a bias current source (156) for biasing the amplifier (30), a sensing circuit (160) for sensing a portion of the error signal, a reference current source (172) for providing a reference current, a second error circuit (170) responsive to a difference between the portion of the error signal and the reference current to produce a second error current; and a boost circuit (174) responsive to the second error signal to increase the bias current provided to the amplifier (30a) when the load demands more current.

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A. CLASSIFICATION OF SUBJECT MATTER				
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B. FIELDS SEARCHED				
Minimum documentation searched (classification system followed by classification symbols) U.S. : 323/280, 316, 312, 313, 314, 315, 281				
Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched NONE				
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) APS				
C. DOCUMENTS CONSIDERED TO BE RELEVANT				
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.		
A	US 5,889,395 A (LUNDBERG) 30 MARCH 1999 (30.03.1999), col. 3, line 24 thru col.6, line 40.	1-9		
A	US 5,545,978 A (PONTIUS) 13 APRIL 1996 (13.04.1996), col 4, line 66 thru col. 5, line 18.	1-9		
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/> See patent family annex.				
* Special categories of cited documents: <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;"> "A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed </td> <td style="width: 50%; border: none;"> "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family </td> </tr> </table>			"A" document defining the general state of the art which is not considered to be of particular relevance "E" earlier application or patent published on or after the international filing date "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified) "O" document referring to an oral disclosure, use, exhibition or other means "P" document published prior to the international filing date but later than the priority date claimed	"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art "&" document member of the same patent family
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Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450 Facsimile No. (703)305-3230		Authorized officer Y. J. Han <i>Shawn S. Happe</i> Telephone No. 703-308-1782		