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12/835,653 13 July 2010 (13.07.2010) US(71) Applicant (for all designated States except US): **POWER INTEGRATIONS, INC.** [US/US]; 5245 Hellyer Avenue, San Jose, California 95138 (US).

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Declarations under Rule 4.17:

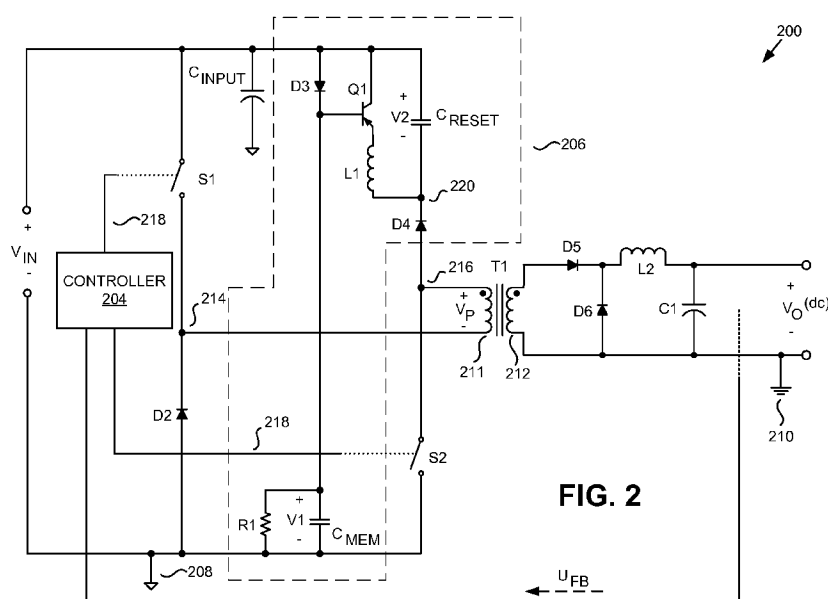
— as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii))

Published:

— with international search report (Art. 21(3))

[Continued on next page]

(54) Title: RESET VOLTAGE CIRCUIT FOR A FORWARD POWER CONVERTER



(57) Abstract: A reset voltage circuit for a forward power converter includes a reset capacitor and a memory capacitor. The reset capacitor is to be coupled to recycle energy from a primary winding of a transformer to an input bulk capacitor during a resetting of the transformer. The memory capacitor is to be coupled to store a first voltage equal to an input voltage of the power converter when the input voltage is at a steady-state value. The memory capacitor is further to set a voltage across the primary winding during the resetting of the transformer to a magnitude greater than or equal to the first voltage when the input voltage of the forward power converter drops below the steady-state value.



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- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))* (88) **Date of publication of the international search report:**
12 April 2012

A. CLASSIFICATION OF SUBJECT MATTER**H02M 3/28(2006.01)i**

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)

H02M 3/28; H02M 3/335; H02M 7/537

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Korean utility models and applications for utility models

Japanese utility models and applications for utility models

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)

eKOMPASS(KIPO internal) & Keywords: "Converter", "Forward", "Flyback", "Two Switch", "Two Transistor", "Recovery Circuit", "Capacitor", "Reset", "Zero Voltage"

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 5883793 A (Lucent Technologies Inc) 16 Mar. 1999 see the abstract, claims 1-21, figures 1-2	1-24
A	US 4754385 A (Varo Inc) 28 Jun. 1988 see the abstract, claims 1-17, figures 1-2	1-24
A	US 4870553 A (Compaq Computer Corp) 26 Sep. 1989 see the abstract, claims 1-7, figures 1-5	1-24
A	US 5640318 A (Ching-shan Leu) 17 Jun. 1997 see the abstract, claim 1, figures 1-4	1-24
A	US 5508903 A (Felix Alexndrov) 16 Apr. 1996 see the abstract, claims 1-15, figures 1-7	1-24
A	US 4736284 A (Kikusui Electronics Corp) 5 Apr. 1988 see the abstract, claims 1-10, figures 1-6	1-24



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:

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"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

Date of the actual completion of the international search

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 5883793 A	16.03.1999	None	
US 4754385 A	28.06.1988	None	
US 4870553 A	26.09.1989	EP 0367380 A2 EP 0367380 A3 EP 0367380 B1	09.05.1990 31.10.1990 02.06.1993
US 5640318 A	17.06.1997	None	
US 5508903 A	16.04.1996	None	
US 4736284 A	05.04.1988	JP 62-163568 A	20.07.1987