Title: TAPPED-INDUCTOR STEP-DOWN CONVERTER

Abstract: A tapped-inductor step-down converter and method for clamping same with a clamping capacitor (Cr) so that MOSFETs can be employed to improve circuit efficiency. The converter includes a tapped-inductor (25a, 25b) and clamping capacitor (Cr) uniquely arranged to eliminate resonance between the leakage energy of the leaky inductance (Lk2) and the clamping capacitor (Cr). Moreover, such arrangement provides for the recycling or recovering of the leakage energy from a leaky inductance of the tapped-inductor to further improve circuit efficiency.
INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 HO2M3/158

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)

IPC 7 HO2M

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

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

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category * Citation of document, with indication, where appropriate, of the relevant passages Relevant to claim No.

A US 6 094 038 A (LETHELLIER PATRICE R)
the whole document --- 1-7

A LEVY H ET AL: "Analysis and evaluation of a lossless turn-on snubber"
APPLIED POWER ELECTRONICS CONFERENCE AND
EXPOSITION, 1997. APEC '97 CONFERENCE
PROCEEDINGS 1997., TWELFTH ANNUAL ATLANTA,
GA, USA 23-27 FEB. 1997, NEW YORK, NY,
USA,IEEE, US,
23 February 1997 (1997-02-23), pages
757-763, XP010215747
the whole document --- 1,4-6

Further documents are listed in the continuation of box C.

* Special categories of cited documents:

'A' document defining the general state of the art which is not considered to be of particular relevance
'E' earlier document but 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

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'A' document member of the same patent family

Date of the actual completion of the international search

22 January 2003

Date of mailing of the international search report

29/01/2003

Name and mailing address of the ISA

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Fax: (+31-70) 340-3016

Authorized officer

Thissle, S
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<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
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