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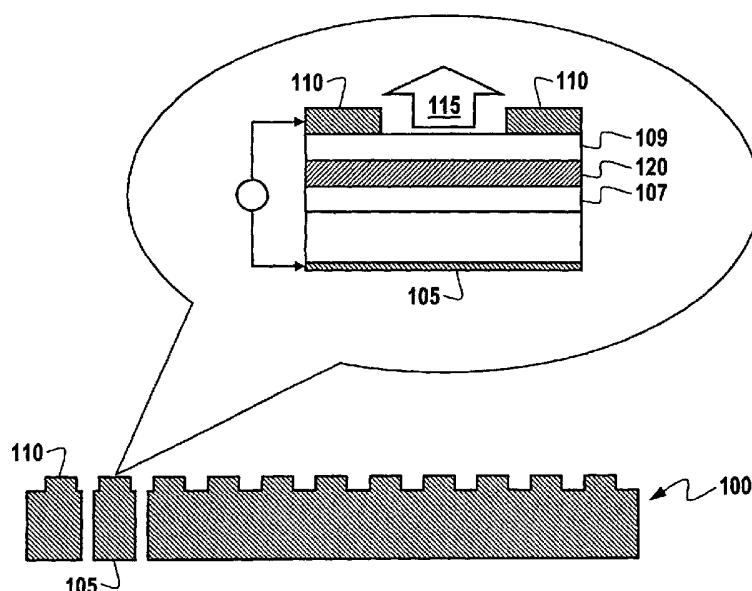
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(54) Title: PROVIDING CURRENT CONTROL OVER WAFER BORNE SEMICONDUCTOR DEVICES USING OVERLAYER PATTERNS



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(57) Abstract: Disclosed are methods for providing wafer parasitic current control to a semiconductor wafer (1240) having a substrate (1240), at least one active layer (1240) and at least one surface layer (1240). Current control can be achieved through the formation of patterns (1240) surrounding contacts (1215), said patterns (1240) including insulating implants and/or sacrificial layers formed between active devices represented by said contacts (1215). Current flows through active regions (1260) associated with said contacts (1215) and active devices. Methods of and systems for wafer level burn-in (WLBI) of semiconductor devices are also disclosed. Current control at the wafer level is important when using WLBI methods and systems.



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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

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A. CLASSIFICATION OF SUBJECT MATTER IPC 7 G01R31/27 G01R31/316

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 G01R H01L
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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)
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EPO-Internal

C. DOCUMENTS CONSIDERED TO BE RELEVANT
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Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 6 204 074 B1 (FIORE JAMES ET AL) 20 March 2001 (2001-03-20) column 7, line 29 -column 10, line 9; figures 1-3 --- US 4 860 079 A (TURNER TIMOTHY E) 22 August 1989 (1989-08-22) column 1, line 39 - line 59 column 4, line 9 -column 5, line 12; figures 1,2 --- US 6 229 329 B1 (NAKATA YOSHIRO ET AL) 8 May 2001 (2001-05-08) cited in the application column 6, line 52 -column 12, line 21; figures 1-5 --- -/-	1,6,7,9, 14-16, 21,22 1,8,9,16 1,9,16
A		

<input checked="" type="checkbox"/> Further documents are listed in the continuation of box C.
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- *A* document defining the general state of the art which is not considered to be of particular relevance
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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

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A	US 6 184 053 B1 (ELDRIDGE BENJAMIN N ET AL) 6 February 2001 (2001-02-06) column 7, line 26 – line 53; figure 2A -----	1,9,16

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