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(71) Applicant (for all designated States except US): **LATTICE SEMICONDUCTOR CORPORATION** [US/US]; 5555 Ne Moore Ct, Hillsboro, Oregon 97124 (US).

(72) Inventors: **BARTEL, Robert**; 5555 Ne Moore Ct., Hillsboro, Oregon 97225 (US). **SMOAK, Richard**; 5555 Ne Moore Ct., Hillsboro, Oregon 97225 (US). **AGAM, Moshe**; 5555 Ne Moore Ct., Hillsboro, Oregon 97225 (US). **MCDONALD, Adrian**; 5555 Ne Moore Ct., Hillsboro, Oregon 97225 (US).

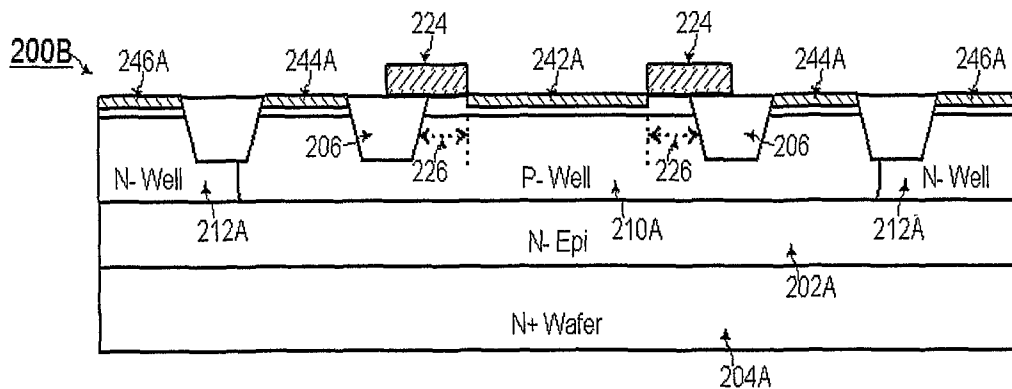
(74) Agent: **BECKER, Mark**; Lattice Semiconductor Corporation, 5555 Ne Moore Ct., Hillsboro, Oregon 97124 (US).

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(54) Title: BIPOLAR JUNCTION TRANSISTOR WITH HIGH BETA



(57) Abstract: In one embodiment of the invention, a bipolar junction transistor (BJT) includes an emitter (216A) comprised of a first doped region doped with a first dopant of a first conductivity type. In addition, a salicide block (224) is disposed over a periphery portion (226) of the first doped region, and a suicide (242A) is formed on an exposed portion of the first doped region inside the periphery portion (226). Such a salicide block (224) prevents formation of salicide down to a base region (210A) in turn preventing leakage current through the base for increased of the BJT.

WO 2006/098868 A3

**INTERNATIONAL SEARCH REPORT**

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**A. CLASSIFICATION OF SUBJECT MATTER**

IPC: **H01L 29/76**( 2006.01),**27/095**( 2006.01),**27/082**( 2006.01),**29/70**( 2006.01)

USPC: 257/378,474,565,576,591,592

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)

U.S. : 257/378,474,565,576,591,592

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 practicable, search terms used)

US-PGPUB, USPAT, USOCR, EPO, JPO, DERWENT, IBM\_TDB

**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2002/0053704 A1 (AVERY et al.) 09 May 2002 (09.05.2002), Abstract, figure 3 and figure 6	1-20
Y	US 6,828,650 B2 (de Fresart et al.) 07 December 2004 (07.12.2004), figure 5.	1-20
X	US 2003/0100149 A1 (WU) 29 May 2003 (29.05.2003), figures 1, 5 and 6.	1-20

Further documents are listed in the continuation of Box C.

See patent family annex.

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"A" document defining the general state of the art which is not considered to be of particular relevance	"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
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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	"&"	document member of the same patent family

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Commissioner for Patents  
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Facsimile No. (571) 273-3201

Authorized officer

Kenneth Parker *Lydia Dell for*

Telephone No. (571) 272-1950