U.S. DEPARTMENT OF COMMERCE

Patent and Trademark Office 102334380 To the Honorable Commissioner of Patents and Lauremarks. Please record the attached original documents or copy thereof. 1. Name of conveying party(ies): 2. Name and address of receiving party(ies): Takaaki SHIRASAWA, Yasuo KOUTAKE, Tsuyoshi MITSUBISHI DENKI KABUSHIKI KAISHA Name: TAKAYAMA, and Natsuki TSUJI Address: 2-3, Marunouchi 2-chome, Chivoda-ku, Tokyo 100-8310 Japan Additional name(s) of conveying 3. Nature of Conveyance: Assignment ☐ Merger ☐ Security Agreement ☐ Change of Name □ Other Additional name(s) and address(es) attached? □Yes ⊠No Execution Date: December 2, 2002 4. Application number(s) or patent number(s): If this document is being filed together with a new application, the execution date of the application is: December 2, 2002 B. Patent No.(s) A. Patent Application No.(s) Additional numbers attached? ☐ Yes ⊠ No 5. Name and address of party to whom correspondence 6. Total applications and patents involved: 1 concerning document should be mailed: 7. Total fee (37 CFR 3.41): \$40.00 Enclosed ☐ Authorized to be charged to deposit account 8. Deposit account number: 15-0030 Tel. (703) 413-3000 (Attach duplicate copy of this page if paying by deposit account) Fax. (703) 413-2220 DO NOT USE THIS SPACE 9. Statement and signature To the best of my knowledge and belief, the foregoing information is true and correct and any attached copy is a true copy of the original document. Marvin J. Spivak Name of Person Signing Registration Number 21,124 Registration Number: 24,913 Total number of pages including this cover sheet: 3 12/31/2002 WABRHANI 00000065 10330438 Do not detach this portion Mail documents to be recorded with required cover sheet information to: **Commissioner of Patents and Trademarks Box Assignments** Washington, D.C. 20231

PATENT REEL: 013635 FRAME: 0206

	WHEREAS, I (WE) Takaaki SHIRASAWA, c/o MITSUBISHI DENKI KABUSHIKI		
	KAISHA, 2-3, Marunouchi 2-chome, Chiyoda-ku, TOKYO 100-8310 JAPAN, Yasuo		
ISERT NAMES ND RESIDENCE DDRESSES OF HE INVENTORS:	KOUTAKE and Tsuyoshi TAKAYAMA, both of c/o FUKURYO SEMI-CON ENGINEERING		
	CORPORATION, 1-1, Imajuku-higashi 1-chome, Nishi-ku, Fukuoka-shi, FUKUOKA		
	819-0161 JAPAN, and Natsuki TSUJI, c/o SUN-A CORPORATION, 1547-1,		
	Hatajiki-Cho, Miyoshi-City, HIROSHIMA 728-0006 JAPAN		
ı			
	, respectively,		
ISERT TITLE F INVENTION:	have invented certain new and useful improvements in: POWER SEMICONDUCTOR DEVICE HAVING LAYERED STRUCTURE OF POWER SEMICONDUCTOR ELEMENTS AND TERMINAL MEMBERS		
ISERT DATE IN- ENTORS SIGNED ECLARATION:	for which an application for Letters Patent was executed on December 2, 2002		
	(Application No, filed), and		
ISERT NAME ND ADDRESS OF OMPANY OR THER ASSIGNEE:	WHEREAS,MITSUBISHI DENKI KABUSHIKI KAISHA		
	(hereinafter referred to as "ASSIGNEE") having a place of business at:		
	2-3, Marunouchi 2-chome, Chiyoda-ku, TOKYO 100-8310 JAPAN ,		
	is desirous of acquiring the entire right, title and interest in and to said invention and in and to any Letters Patent that may be granted therefore in the United States and its territorial possessions and in		

NOW, THEREFORE, in consideration of the sum of FIVE DOLLARS (\$5.00), the receipt whereof is hereby acknowledged, and for other good and valuable consideration, I (WE), by these presents do sell, assign and transfer unto said ASSIGNEE, the full and exclusive right to the said invention in the United States and its territorial possessions and in all foreign countries and the entire right, title and interest in and to any and all Letters Patent which may be granted therefor in the United States and its territorial possessions and in any and all foreign countries and in and to any and all divisions, reissues, continuations, substitutions and renewals thereof.

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any and all foreign countries;

PATENT REEL: 013635 FRAME: 0207 I (WE) hereby authorize and request the Patent Office Officials in the United States and its territorial possessions and any and all foreign countries to issue any and all of said Letters Patent, when granted, to said ASSIGNEE as the assignee of my (our) entire right, title and interest in and to the same, for the sole use and behoof of said ASSIGNEE, its (his) successors and assigns, to the full end of the term for which said Letters Patent may be granted, as fully and entirely as the same would have been held by me (us) had this Assignment and sale not been made.

Further, I (WE) agree that I (WE) will communicate to said ASSIGNEE or its (his) representatives any facts known to me (us) respecting said invention, and testify in any legal proceeding, sign all lawful papers, execute all divisional, continuation, substitute, renewal and reissue applications, execute all necessary assignment papers to cause any and all of said Letter Patent to be issued to said ASSIGNEE, make all rightful oaths, and, generally do everything possible to aid said ASSIGNEE, its (his) successors and assigns, to obtain and enforce proper protection for said invention in the United States and its territorial possessions and in any and all foreign countries.

The undersigned hereby grant(s) the firm of Oblon, Spivak, McClelland, Maier & Neustadt, P.C. of Fourth Floor, 1755 Jefferson Davis Highway, Arlington, Virginia 22202 the power to insert on this assignment any further identification, including the application number and filing date, which may be necessary or desirable in order to comply with the rules of the United States Patent and Trademark Office for recordation of this document.

Date:	December 2, 2002	Takaaki Shirasawa
Date:_	December 2, 2002	(Signature of Inventor)  Takaaki SHIRASAWA  Yasuo Koutake (Signature of Inventor)  Yasuo KOUTAKE
Date:_	December 2, 2002	/SUYOSIY Takayama (Signature of Inventor) Tsuyoshi TAKAYAMA
Date:_	December 2, 2002	Vatsuki Tsuji (Signature of Inventor) Natsuki TSUJI
Date:_		(Signature of Inventor)
Date:_		(Signature of Inventor)
Date:		(Signature of Inventor)
Date:_		(Signature of Inventor)

OBLON, SPIVAK, McCLELLAND, MAIER & NEUSTADT, P.C.

ATTORNEYS AT LAW FOURTH FLOOR 1755 JEFFERSON DAVIS HIGHWAY ARLINGTON, VIRGINIA 22202

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**RECORDED: 12/30/2002** 

PATENT REEL: 013635 FRAME: 0208