

(19)  
(12)(KR)  
(B1)(51) . Int. Cl. <sup>6</sup>  
H01L 29/74(45) 2002 07 27  
(11) 10 - 0322288  
(24) 2002 01 15(21) 10 - 1993 - 0013107 (65) 0000 - 0000000  
(22) 1993 07 13 (43) 0000 00 00

(30) 9215017.6 1992 07 15 (GB)

(73) 41 7

(72) , 43 8 , , , , 8

(74)

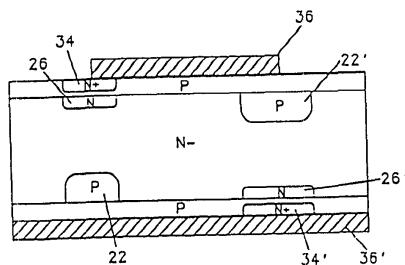
(54)

가

가

가

## 제 2 I 도



1

2A 2I

1

3

2

4

3

5

4

\* \* \*

10 :

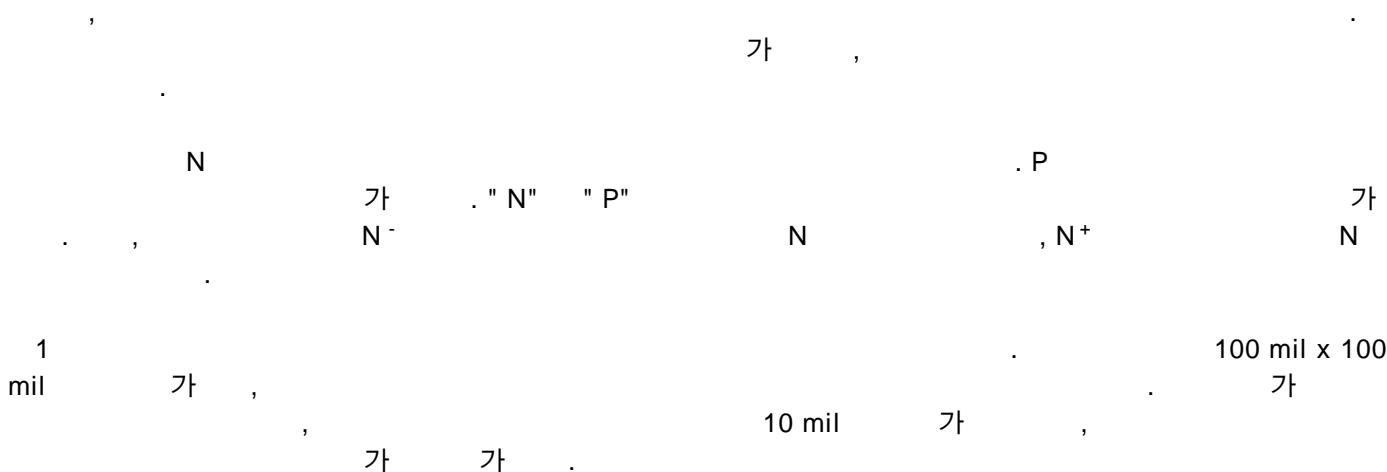
12 : N -

14 :

16 :

,

(solid state suppress  
sor)



N , P N N  
N - , N - (passivation) 1 ~  
18 350 volts 1.5 mil , P 5 mil  
2 mil , , , ,  
N - , N - , N -  
N - , N - , N -  
N - , N - , N -  
P + N - , ,  
2 , , , ,  
1 , 1 , , ,  
2 , , , ,  
1 , , , ,  
2 , , , ,  
1 , , , ,  
2 , , , ,  
1 , , , ,  
2 , , , ,  
1 , , , ,  
4 , , , ,  
2 , , , ,  
2 , , , ,  
1 , , , ,

1 , 가 10 ( )  
가 .

, 2A - 2I

N- ( 1 ) 12 ( 2A ).  
10 mil  
(14) ( 2B ).

2C , (16) ( ) 가 (不溶) .  
UV (UV  
8') ( ) 2C , .  
0' (22, 22') (12) .  
(18, 18') N- 가  
2 ( 2E ).

(Photolithograph) (24, 24') (phosphorus)  
2 , N ( 1  
(26, 26') ( 2F ).

, P ( 2 ) (28, 28') P( 2 ) (30, 30') ( 2G  
).

, (32, 32') N<sup>+</sup> ( 1 ) (34, 34') ( 2H ).

, 가  
(36, 36')

, 2I , 가  
(22') (22)

21 , N- 가  
(38, 38')

가 가 - 40

25  $\mu$ s

3  $\mu$ s

, 50 A 10/1000  $\mu$ s 100A

, 가 , 가 ,  
 가 . 10 kv/ $\mu$ s , 가  
 100V 15 V

4  
 N (42,42°), P (44,44°), P (46,46°) N<sup>+</sup> (48,48°) (12)  
 P , N<sup>-</sup> , P ( ) 2A 2I  
 , N<sup>-</sup>

5 , (54) (56) 가 (50) (52)

(57)

1.

2 1 , 가 , ;  
 ; (concavity) , 1 ;  
 1 1 ;  
 2 2 3 ;  
 1 2 3 1 ;  
 1 4

2.

1 ,

2

3.

1 ,

1 10 mil

4.

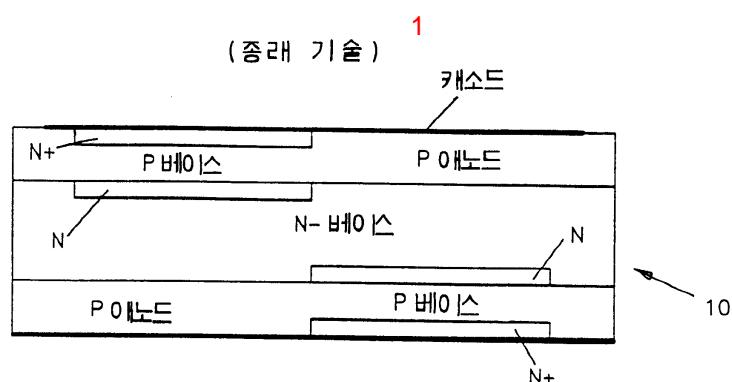
1 3 ,

2 2 5

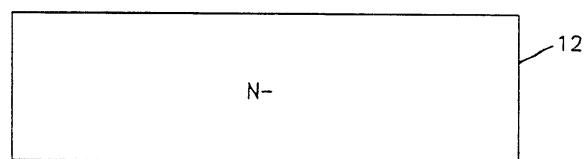
5.

1 4 ,

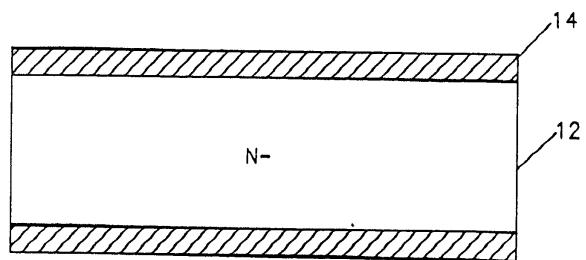
1 N , 2 P



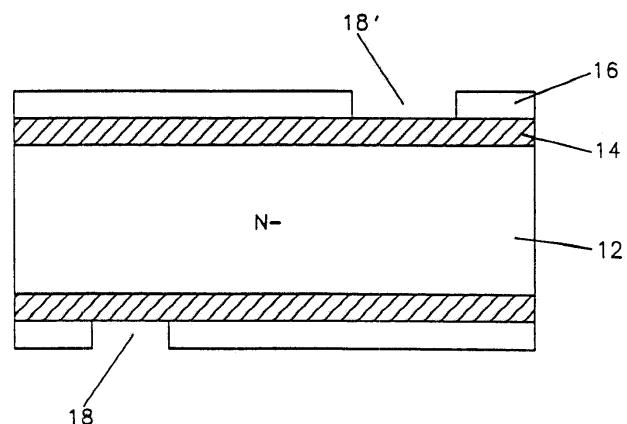
2a



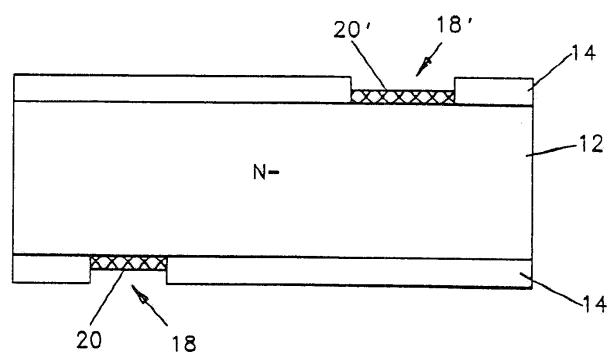
2b



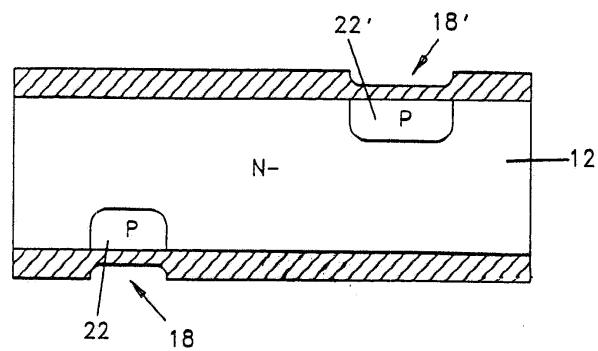
2c



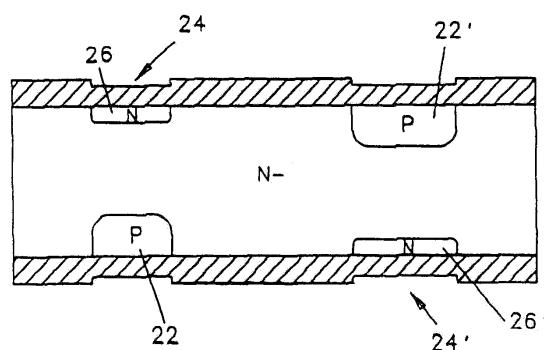
2d



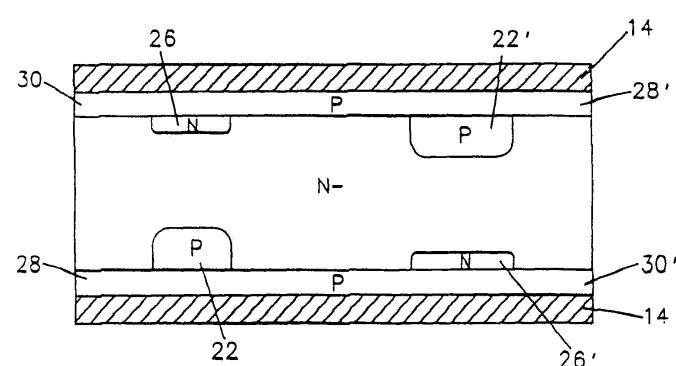
2e



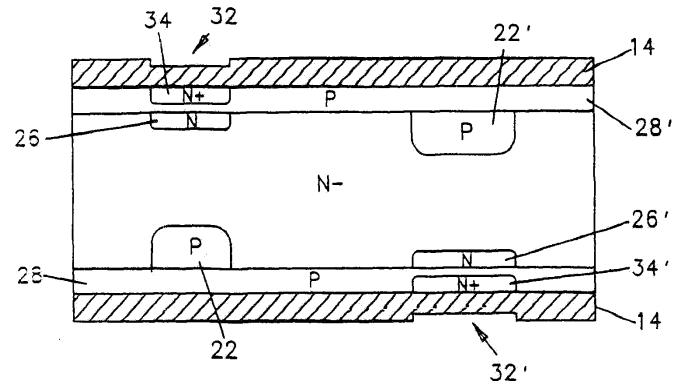
2f



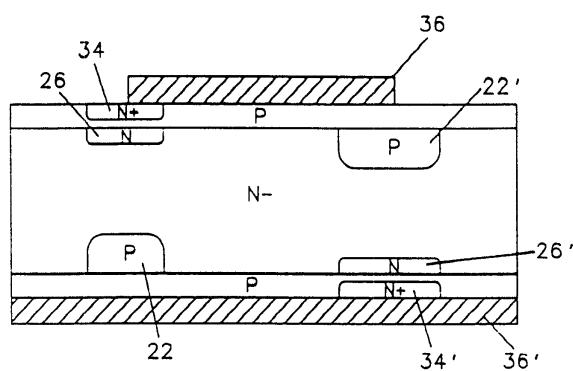
2g



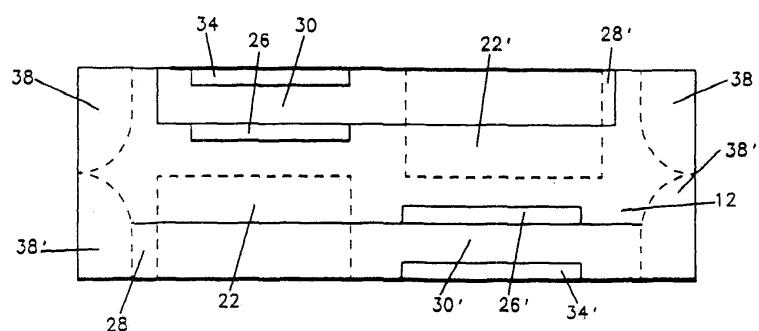
2h



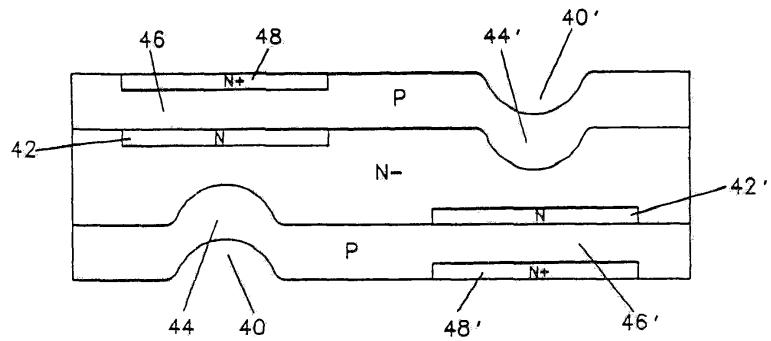
2i



3



4



5

