

(19)
(12)

(KR)
(A)

(51) 。 Int. Cl. 7
G02F 1/136

(11)
(43)

2001 - 0062554
2001 07 07

(21) 10 - 2000 - 0079192
(22) 2000 12 20

(30) 11 - 364544 1999 12 22 (JP)
2000 - 321784 2000 10 20 (JP)

(71) 가 가
가
5 7 1

(72) 5 - 7 - 1 가 가
5 - 7 - 1 가 가
5 - 7 - 1 가 가
5 - 7 - 1 가 가
3 - 1 - 1 가 가
3 - 1 - 1 가 가

(74)
:

(54)

, , / 가 TFT
, .

, , , , , , TFT, ,

1 1

2 1 A - A'

3

4 1

5 (island)

6

7

8

9

10

11

12

13 1

14

15

16

17 1

18 1

19 1

20 2

21 20 A - A'

22 2

23 2

24 IPS

TFT

25 가

< >

1 : 2 :

3 : 4 : TFT

5 : 6 :

7 : 8 :

9 : 10 :

11 : 13 :

14 : 15 :

16 :

IPS (In Plane Switching type)(

가

IPS

(TN: Twist Nematic)

24 IPS

(LCD) TFT

24

TFT (105)

(106)

(101),

(102),

(103),

(104),

(103)

(101)

가

IPS

가

가 가

7 - 159786

가

가 가
가

25

가 가

가

가

(flicker)

(field through)

/

(ON)

가

가

가

TFT

가

TFT

가

TFT

가

0 5μm

5×10^{12} cm

가

가

TFT
(twisted nematic type)

TFT
(twisted nematic type)

가

1 1

1 1
 (1) (2) TFT() (4) TFT (3)
 TFT(4) () TFT (7)
 (5) (5) (7) () (3) (6)
 (6) (2) 8

2 1 A - A'
 (14) (5) ()
 8) (comb) (5) (8)
 (9)
 (5) (9) TFT(4) (10)
 (11) 가
 0 2μm

(11) 가 (3) (6)
 TFT(4)
 (8) (3) (8) (8)
 (9) (3) (8) (8)
 가

, TFT(4) (3) (13) (5) ()
 6) 1 (1) (2)
 (5), (3) (6) Al, Cr, Ta, Ti, Mo, W, Nb Pb
 (9) (13) CVD (9) (5) (1)
 (9)

CVD (10) (11)
 3 a e 1 2 3
 3
 , 3 a , 3 b ,
 , n , 3 c , n 가
 , 3 d , /
 , 3 e ,

4 1 (B)

2μm

(W1/L)

20/8

W1/L

20/10

0

5

가

가

가

6

5

가

가

2μm

2μm

7

7

24

(gradation)

가

가

5×10^{12} [cm]

8

8 a

8 b

8 c

,n

,n

8 d

8 e

8 f

8 g

8 c

n

가

2 2

, 2 가 9, 10 11 9 11 4

9 가 (7) 10 (7)
가 가 (7)

9 11 가 가

12 a 가 12
="I3" < < I1 ="I4가" . I1 I4가 (3) (6)
가 , I1 I4 (ON)

, 12 b 가 , I1 I4 가 12 a

, 12 c 가 가

(TFT)

가

24

(checker black)

가()
가

가

0 2μm

h)

2μm

가 (feed - throug

(field through)

가

가

3 3

3
1 2

1 1 IPS
 FT (7) (3) (1) (2) TFT(4) () TFT() (4) T
 (6) (5) (1) (7) () TFT () (3)
 8 (6) (2)

2 1 A - A'
 (5) (8) (14) (5)
 (8) (comb) (9)
 (5) (9) TFT(4) (10) /
 (11)

가

0 5 μ m

(11) 가 (3) TFT(4) (6)
 (3) (8) (3) (8) (3) (8)
 가 (9) (14) (3) (8)

TFT(4) (3) (13) (5)
 (6) 1 (1) (2)
 (5), (3) (6) Al, Cr, Ta, Ti, Mo, W

(9) (13) CVD (9) (5) (1)
 (9)

(10) (11) , CVD

3 a e 1 2 . 3
3

, 3 a , , 3 b , n ,
, n . , 3 c , 가 n
3 e , , 3 d , / , ,
.

13 1 (B)

8 W1/L 20/10 0 5μm (W1/L) 20/

14 가 가 가 가

15 가 . , , O , x , x x , 5
가 24 0μm 가 .

, 16 0 5μm
, , 16

5×10^{12} [cm]

8

8 a , , 8 b , ,
 , n , , 8 c , ,
 , , n , , .
 8 d , /
 , 8 e ,
 , 8 f , , / 가 .
 , 8 g , .

, 8 c , n

가 17, 18 19 . 17 19 13

17 가 (7) 가 18 가
 (7) 가 . 19 가
 가 (7) .
 17 19 가

12 a 가 12 = "13" < < 11 = "14
 가" . 11 14가 (3) (6) 가
 , 11 14 .

, 12 b , 11 14
 11 14가 12 a 가 .

, 12 c , 가 가
 (TFT)

가 , /

가 (checker black) 24 가()
 가 가 가 .
 가 가 .

0 5μm /

가 (feed - through)

5μm

4 4

4

13 20 4

(1) (2) , TFT() (4)
 (3) TFT(4) () TFT
 (5) (7) () (3)
 (6) (5) (1) (6) (2)

14 21 13 20 A - A'

(5) (14)
 (9) (5)
 (5) (9), (10), /

(6) (16)
 (11) 가 TFT(4)
 (13)
 (16) (3) (13) (3) (3) (8)

(15) (lapping)
 (3) (8) (14) (3) (8) 가

, 22 2 22 20 (B)

(7) (5)
 가

, 23 2

(7) (5)
가

11 - 364554 (1999 12 22) 2000 - 321784 (2000 10 20

)

(57)

1.

, , / 가 TFT

2.

, , / 가 TFT

0 2 μ m

3.

1

5×10^{12} cm

4.

2 ,

5×10^{12} cm

5.

1 ,

가

6.

2 ,

가

7.

1 ,

가

8.

2 ,

가

9.

1 ,

가

가

10.

2 ,

가

가

11.

12.

1 ,
.

13.

2 ,
.

14.

, , / 가 TFT
, ,

15.

, , / 가 TFT
, ,

0 5μm .

16.

14 ,
5 × 10¹² cm .

17.

15 ,
5 × 10¹² cm .

18.

14 ,
가 .

19.

15

가

20.

14

가

21.

15

가

22.

14

가

가

23.

15

가

가

24.

ematic type)

/

TFT
(twisted n

25.

ematic type)

/

TFT
(twisted n

26.

27.

14

28.

15

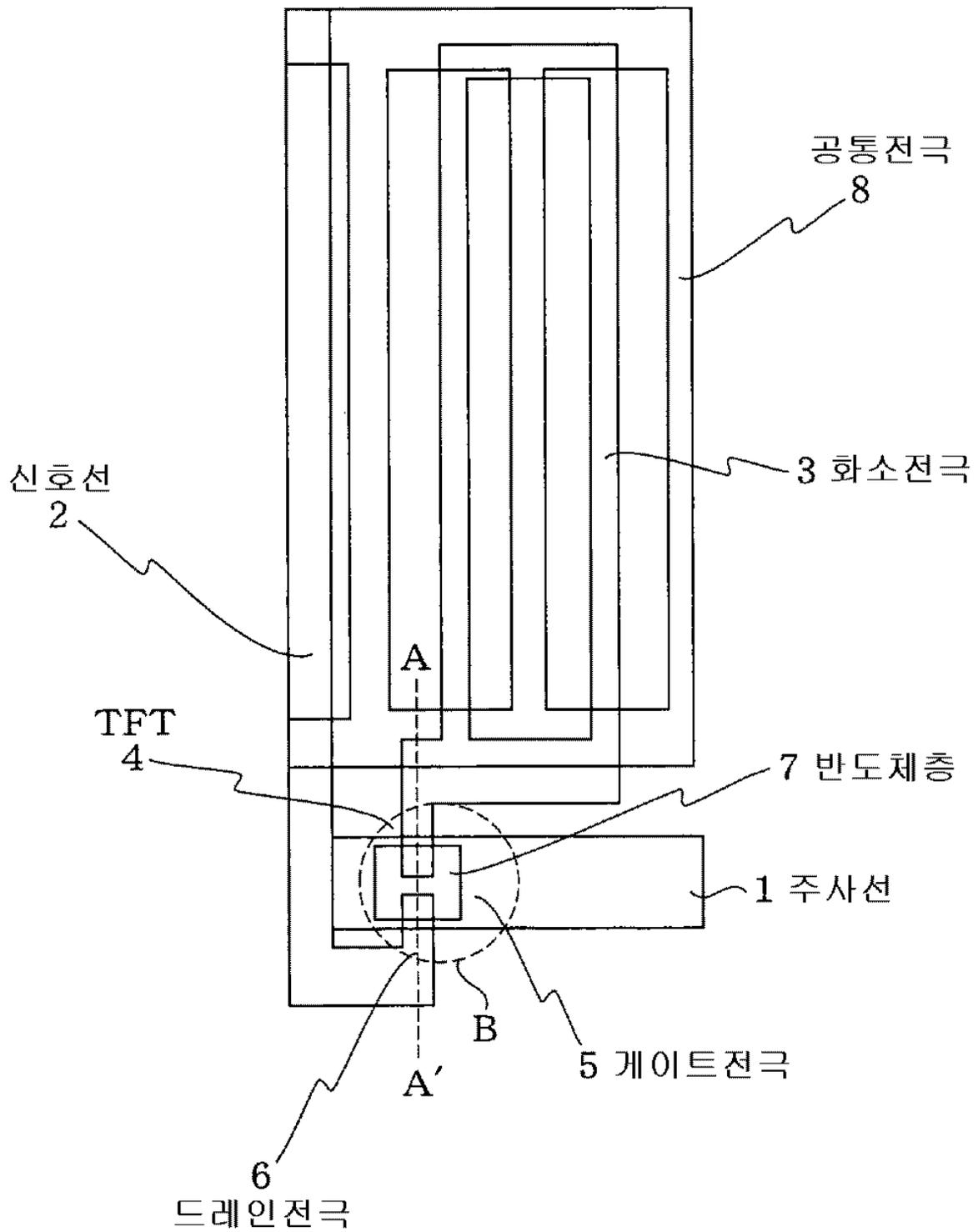
29.

7

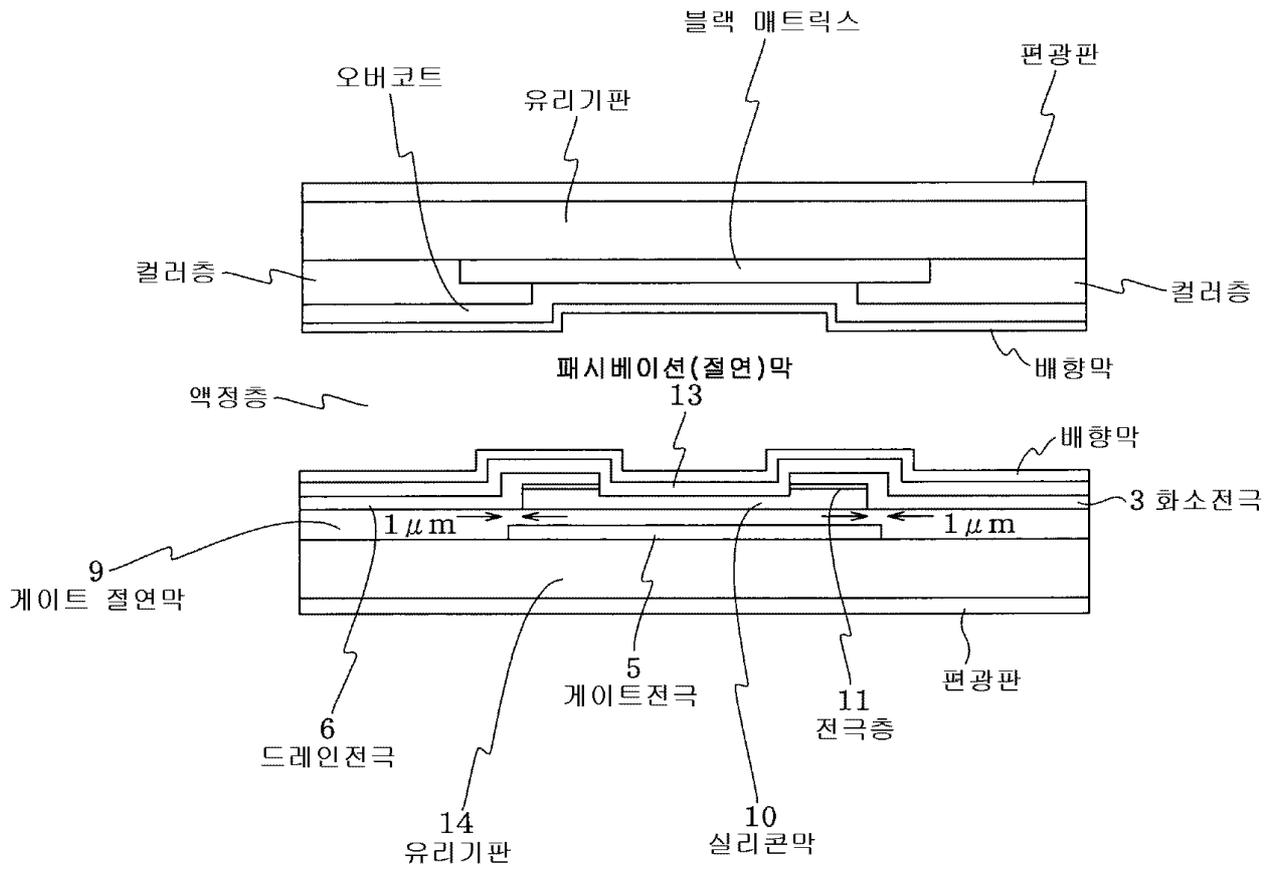
30.

8

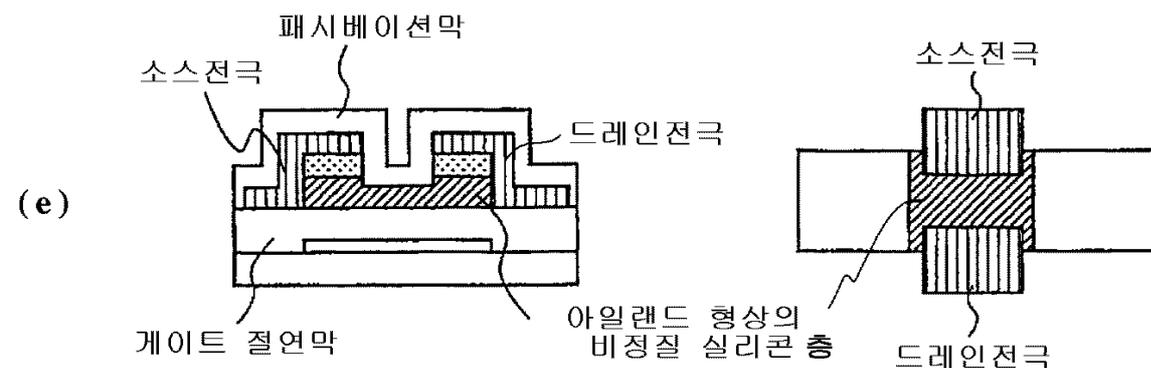
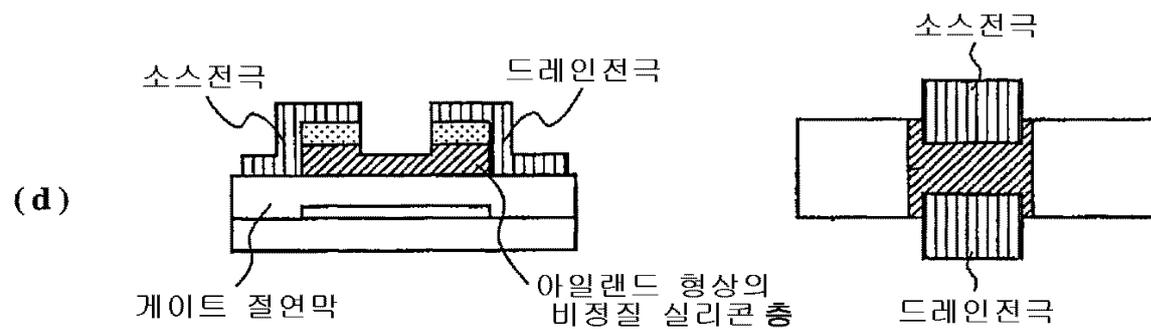
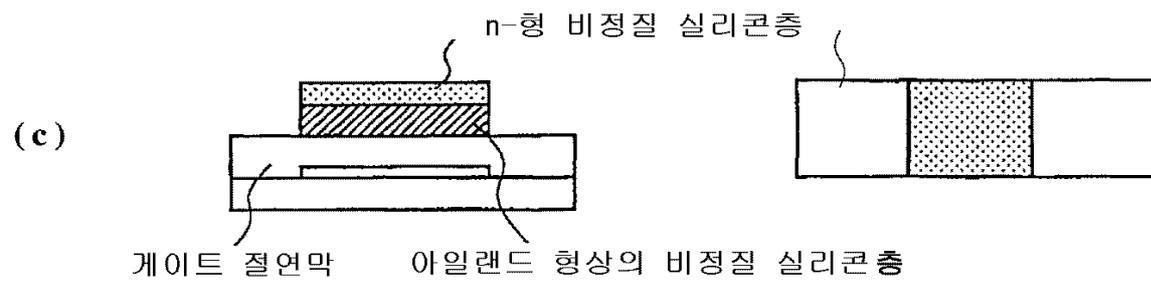
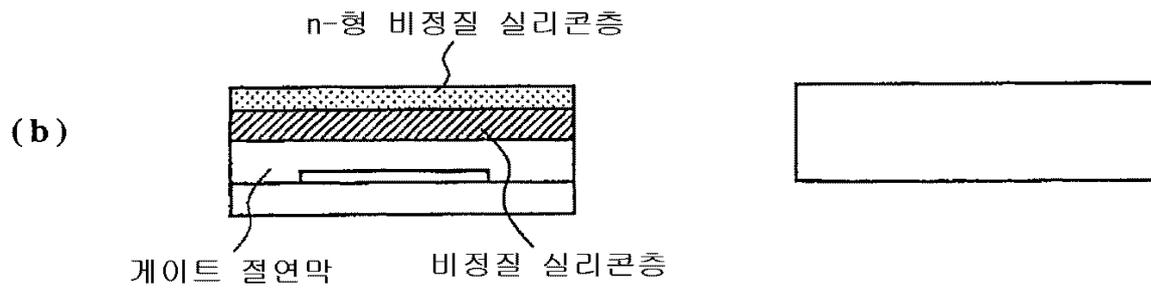
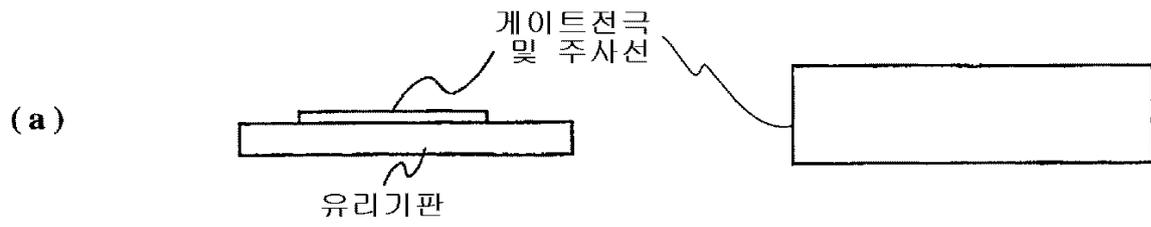
1



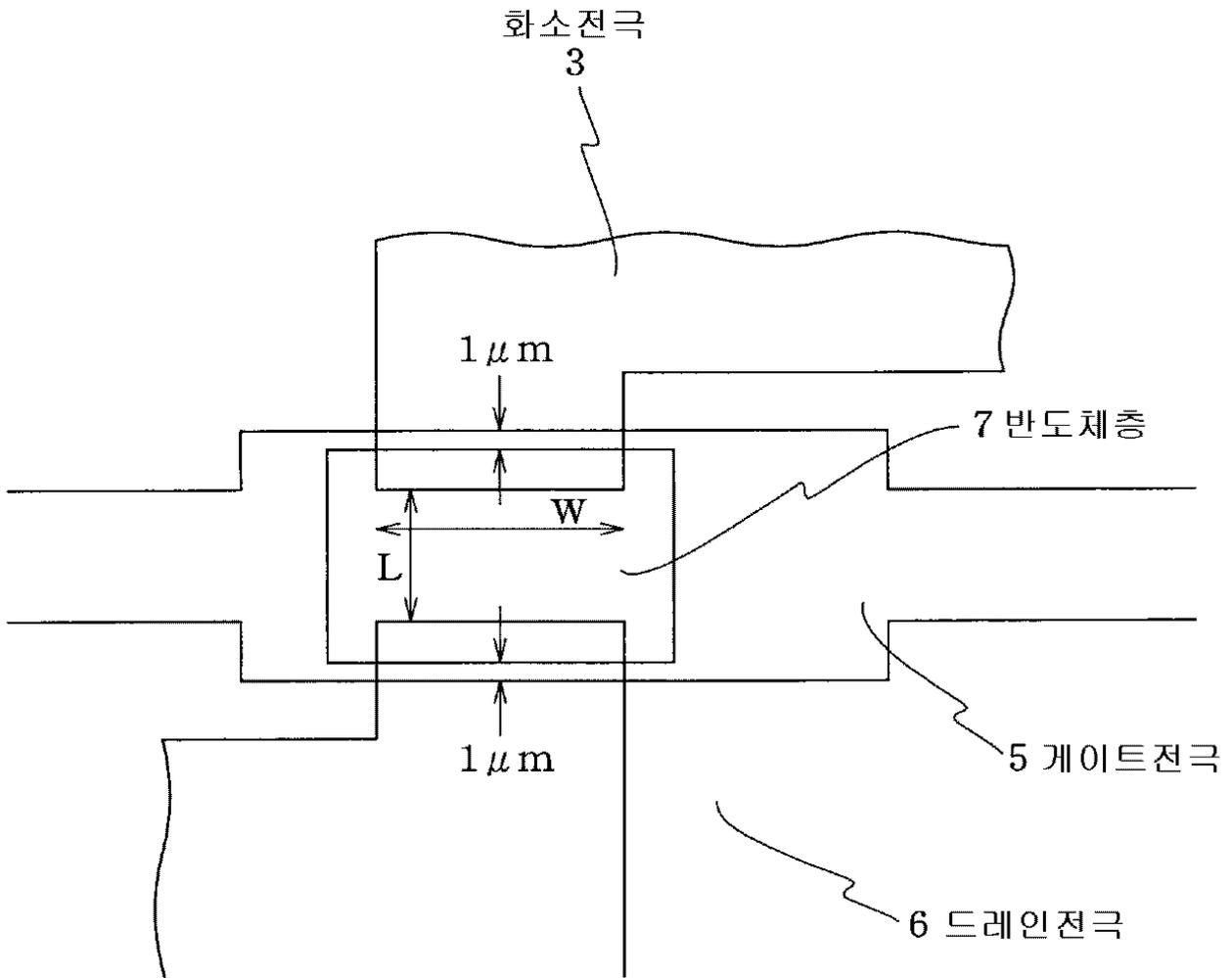
2



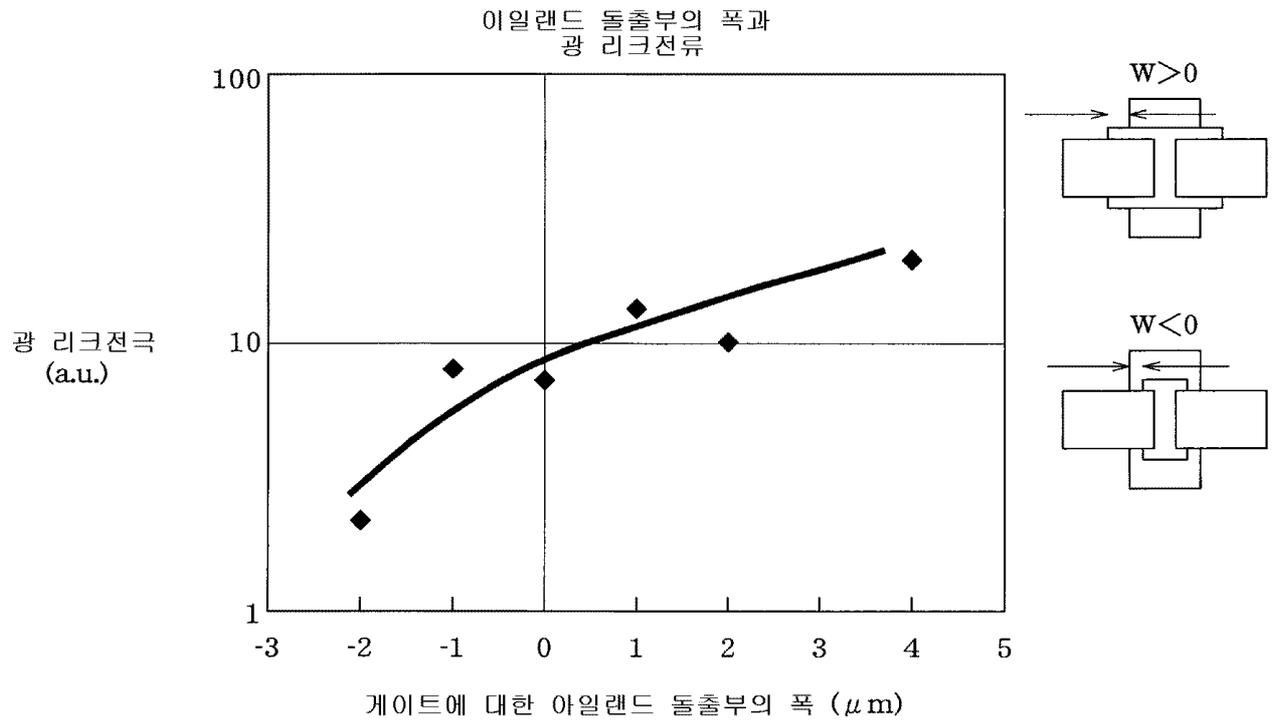
3



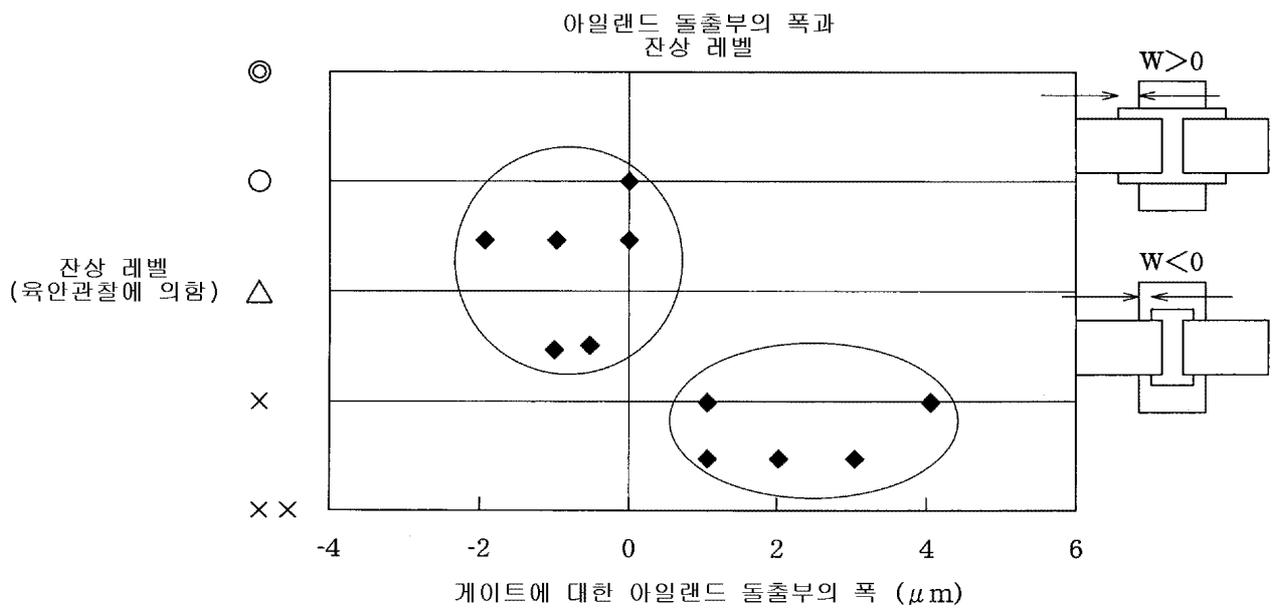
4

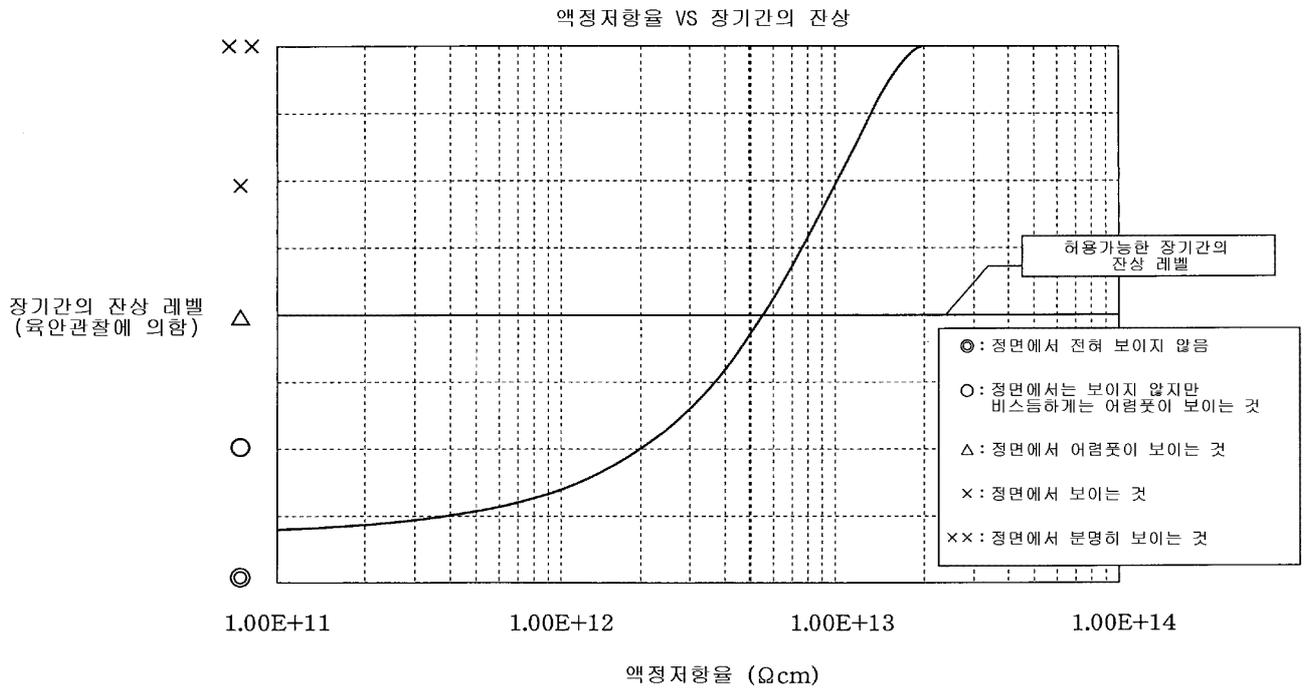


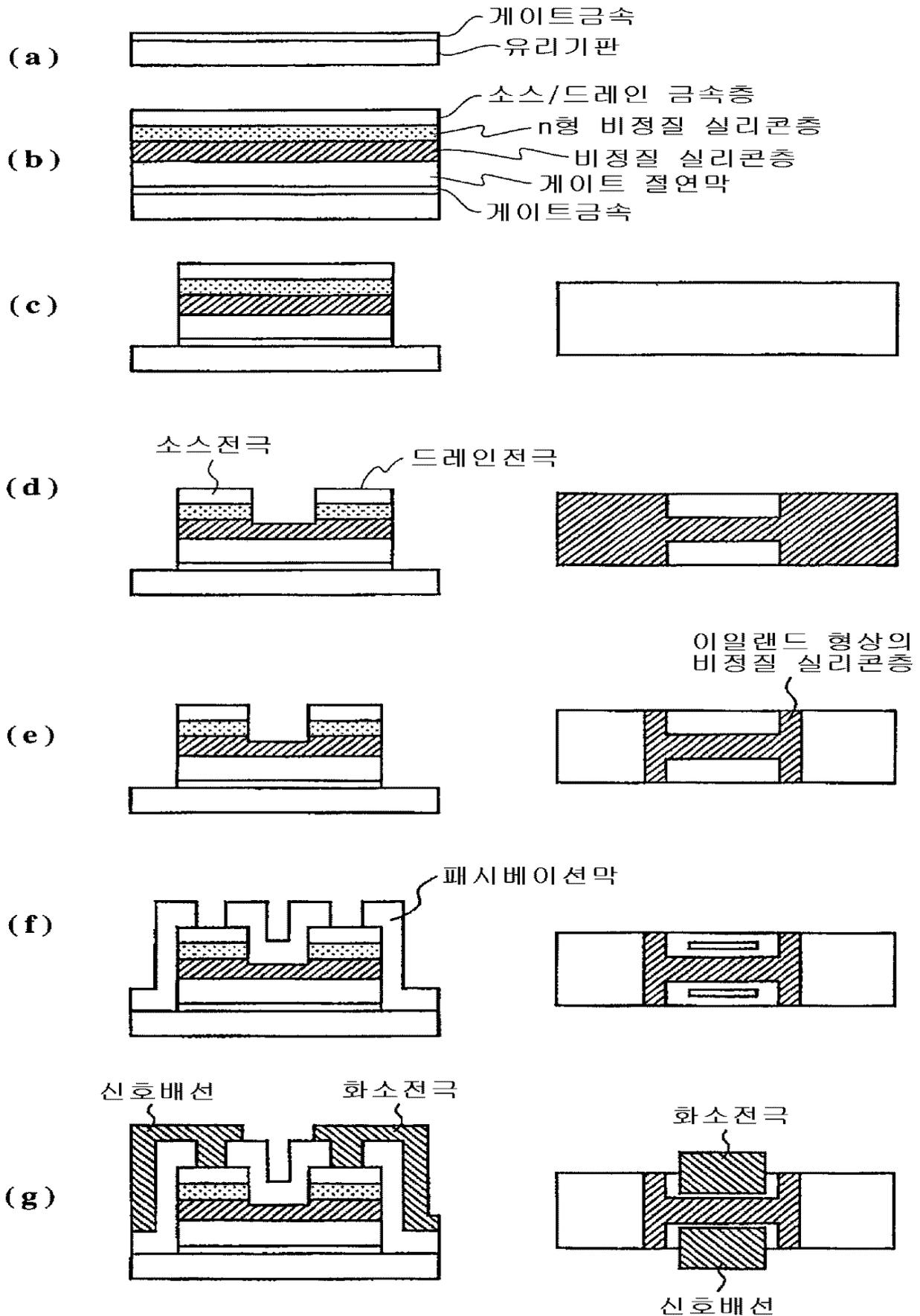
5

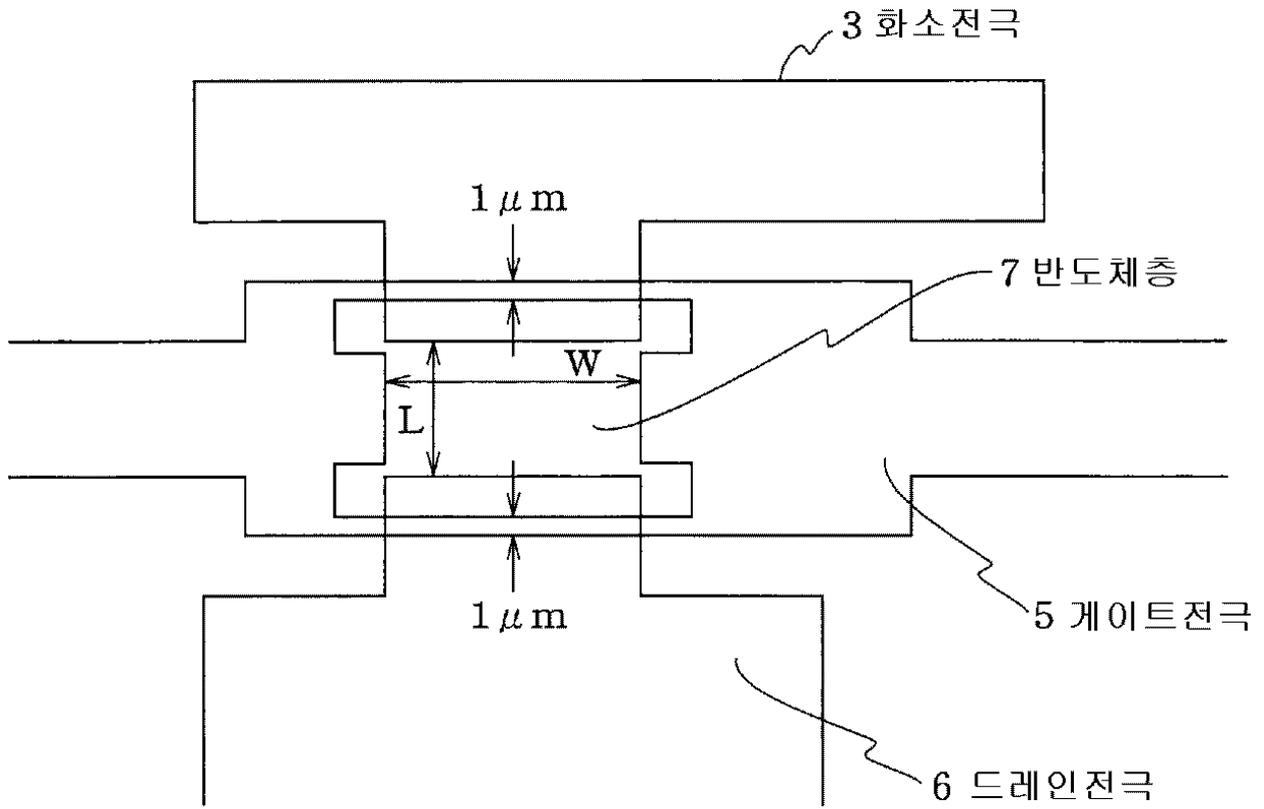


6

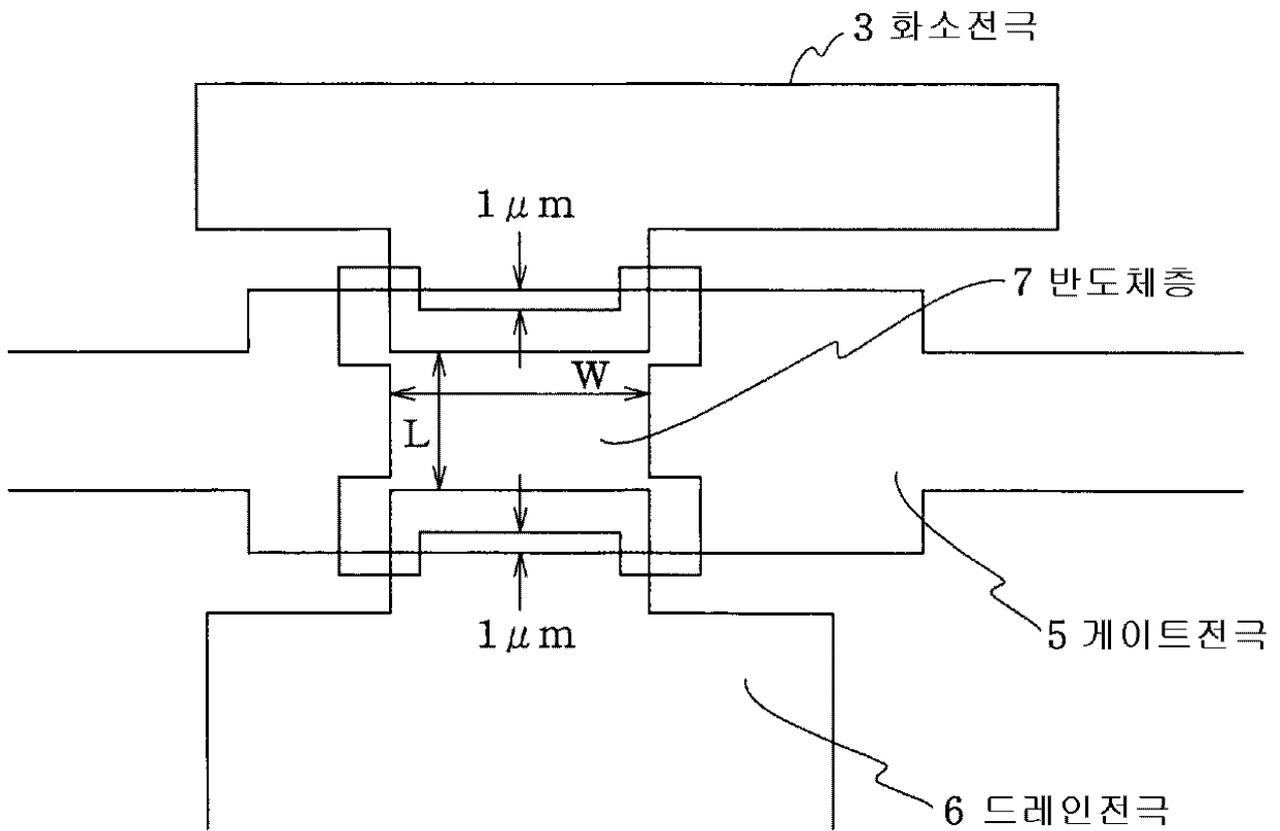


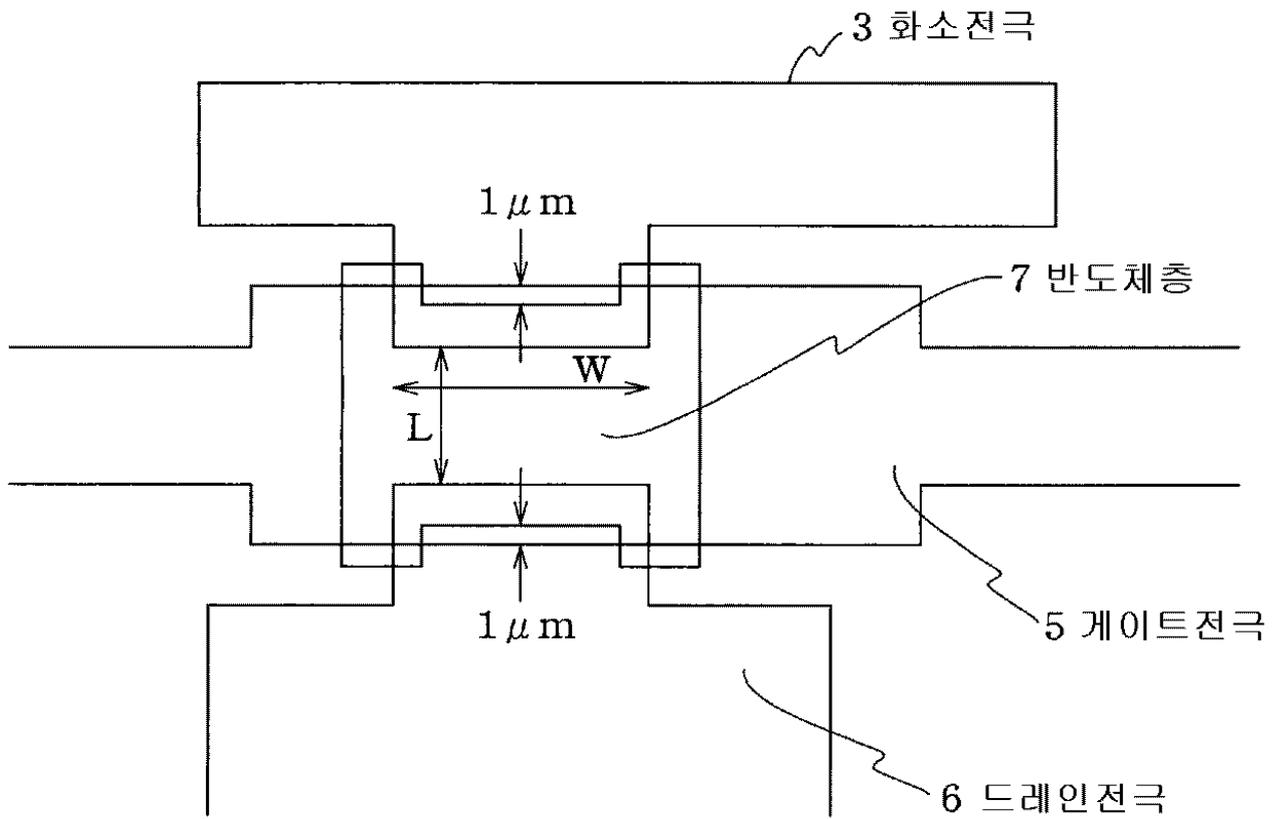




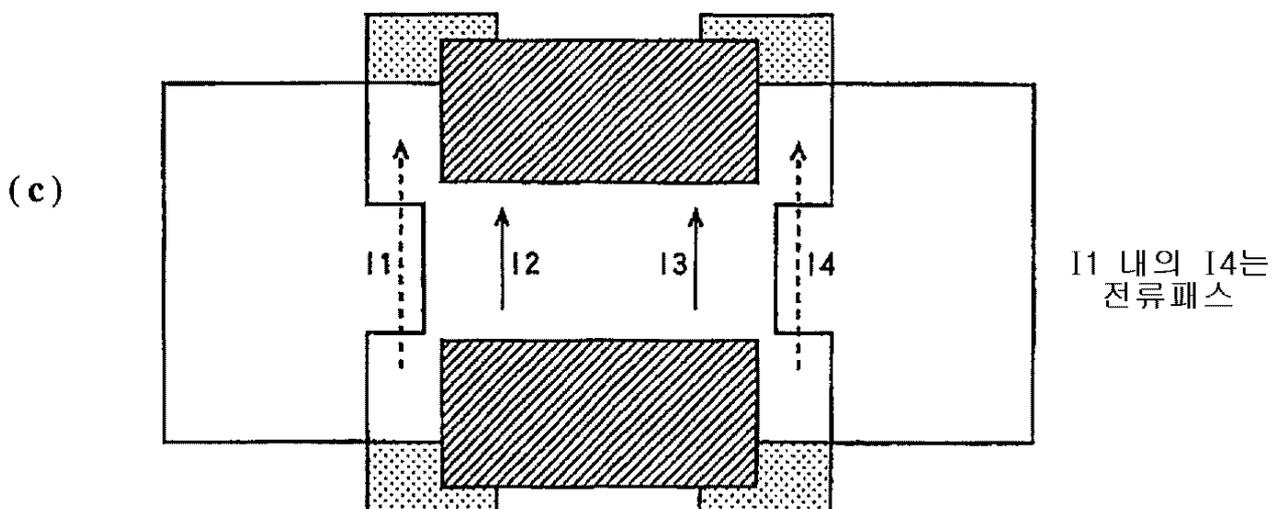
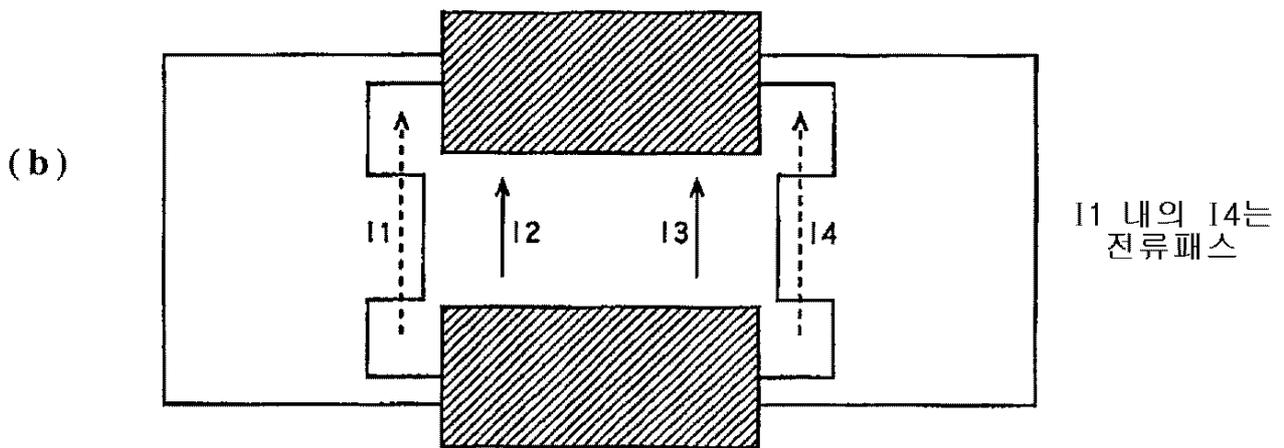
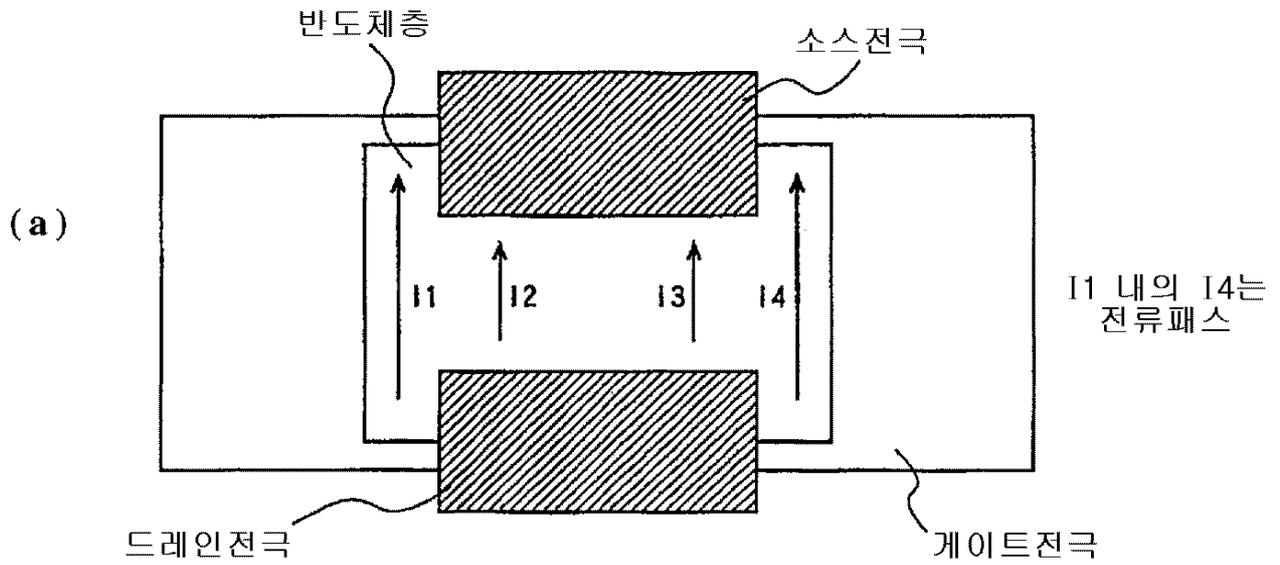


10

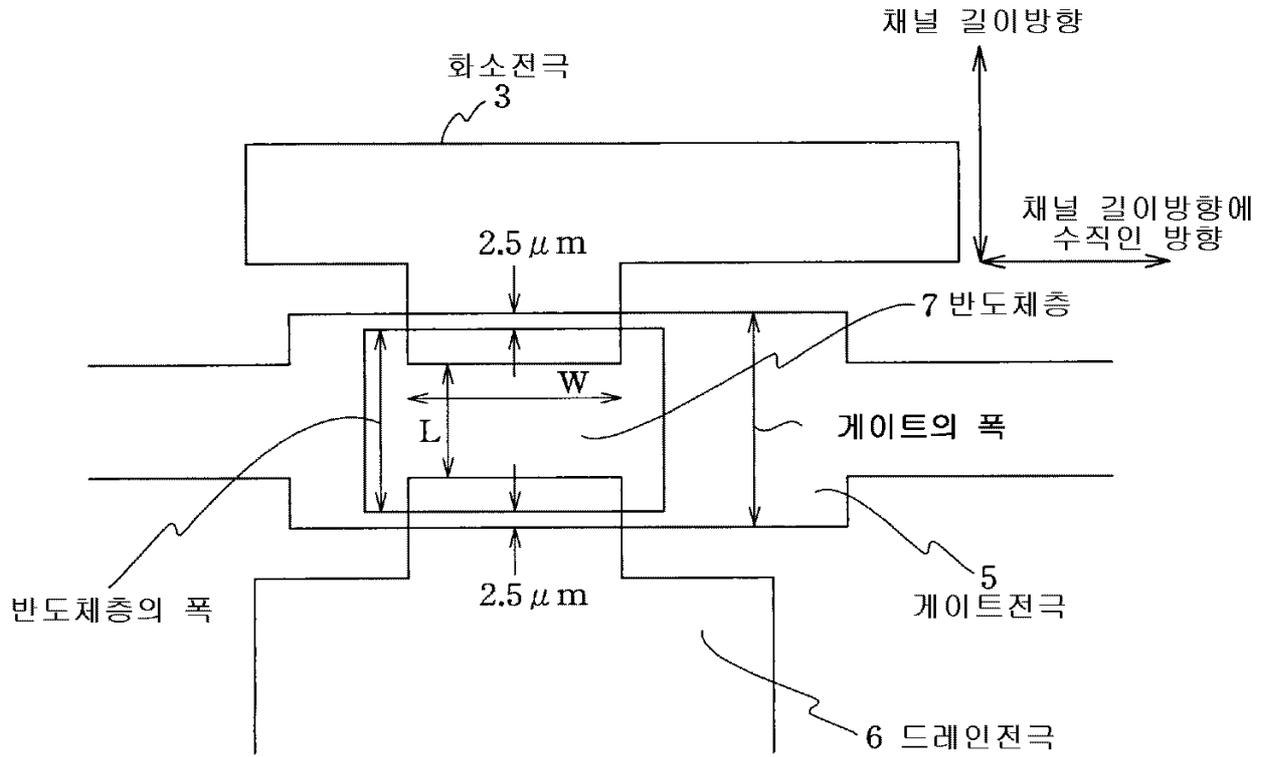




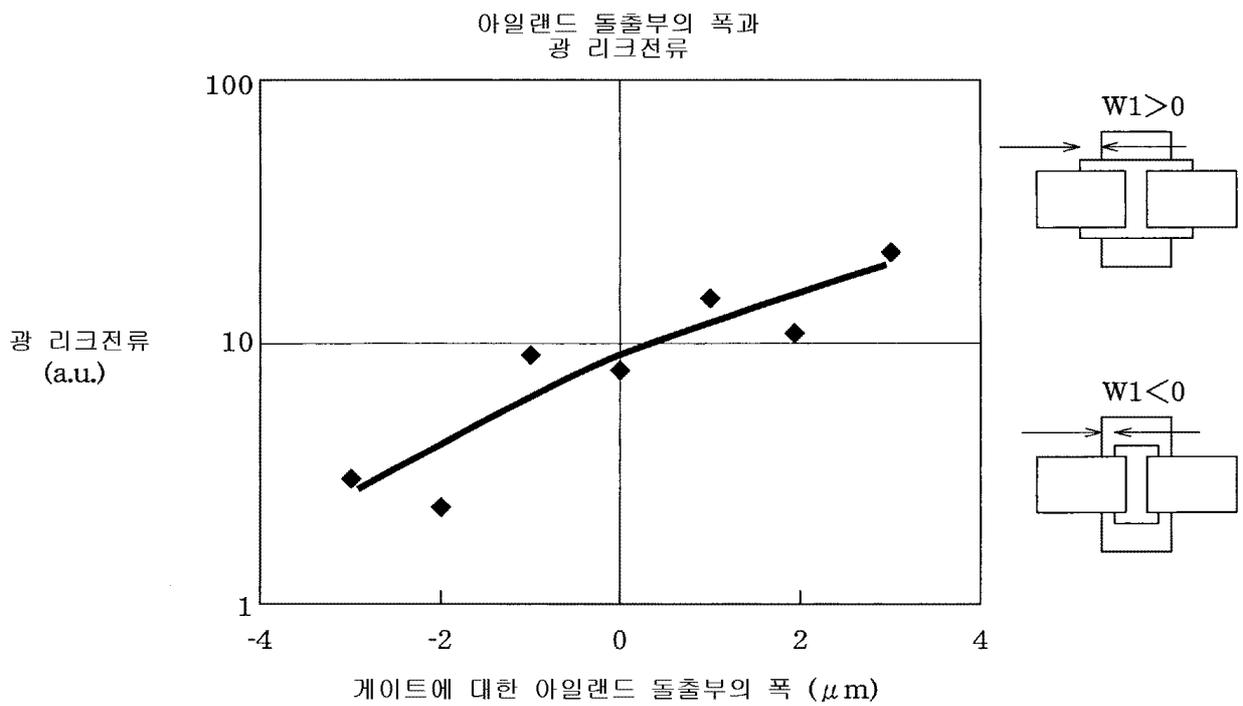
12



13

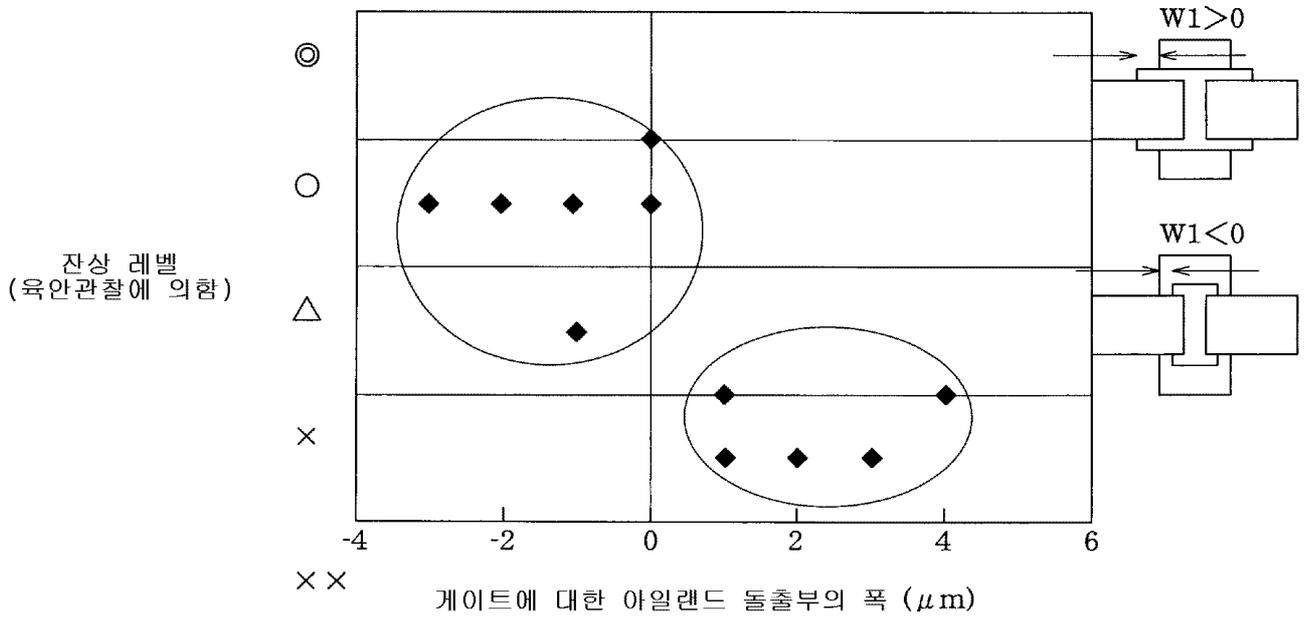


14



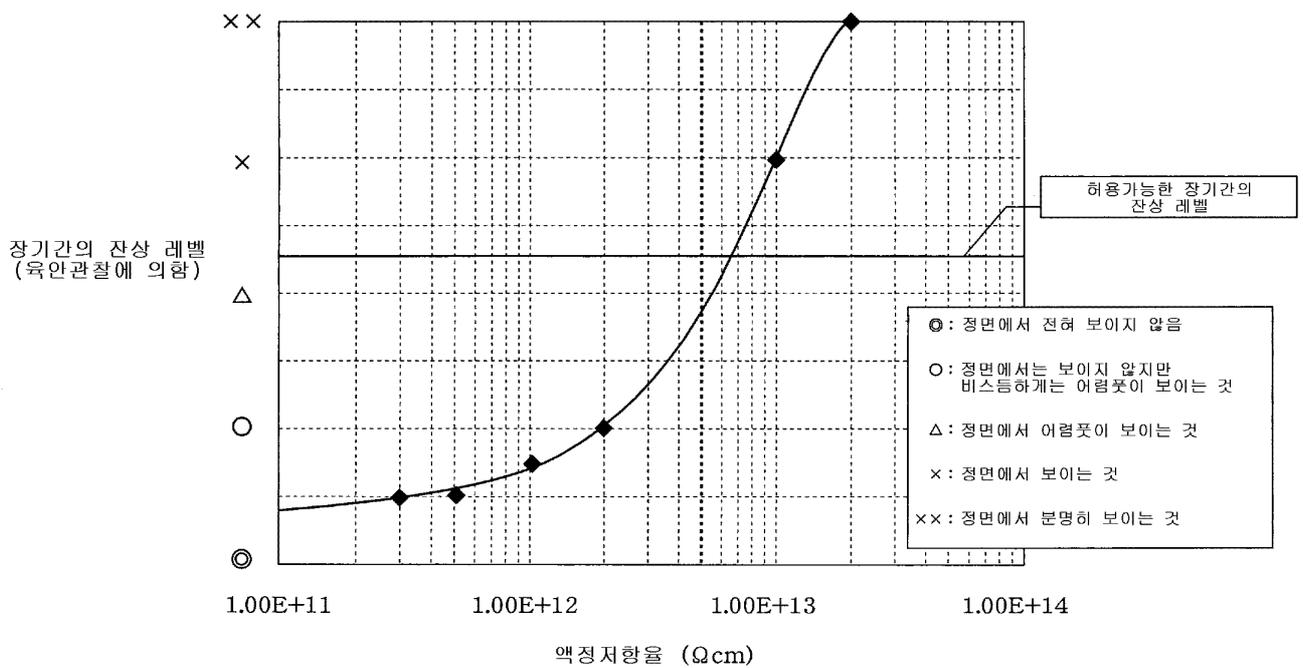
15

아일랜드 돌출부의 폭과 잔상 레벨

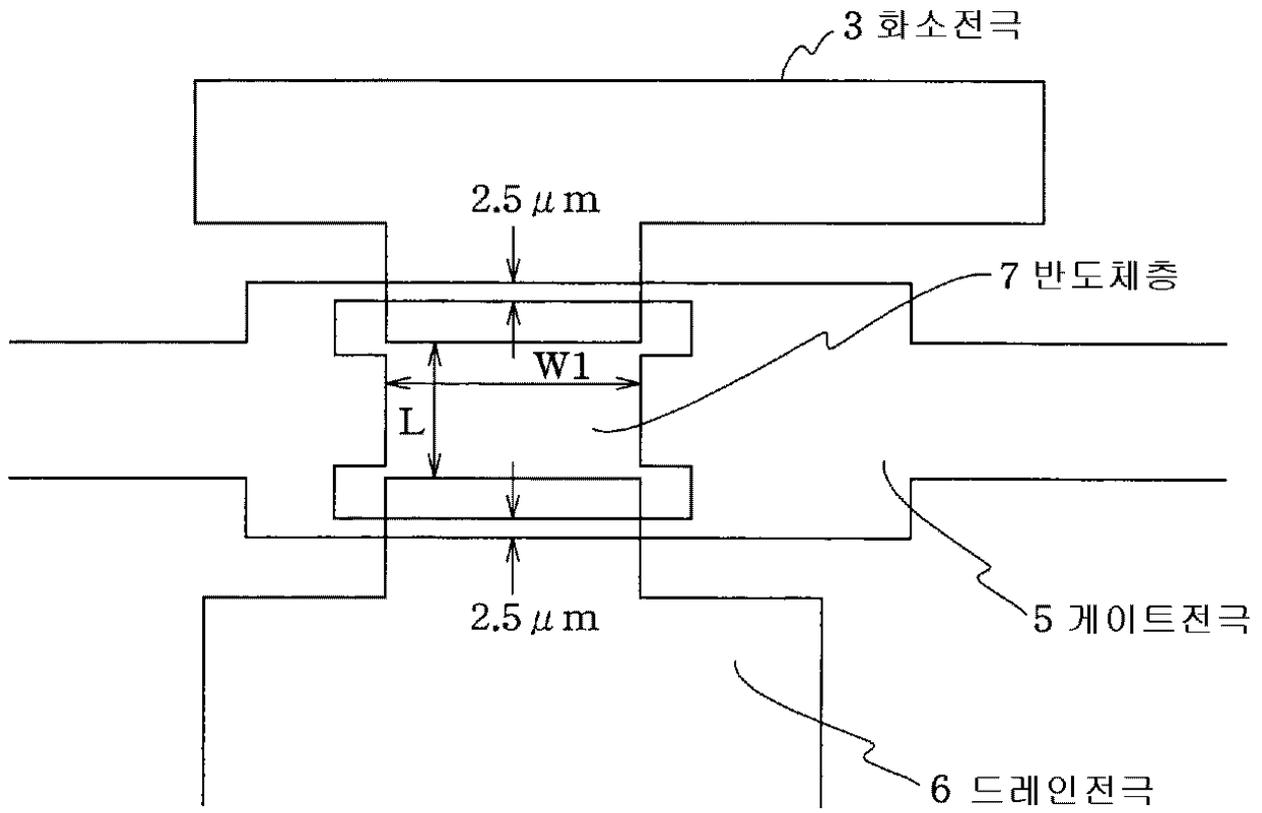


16

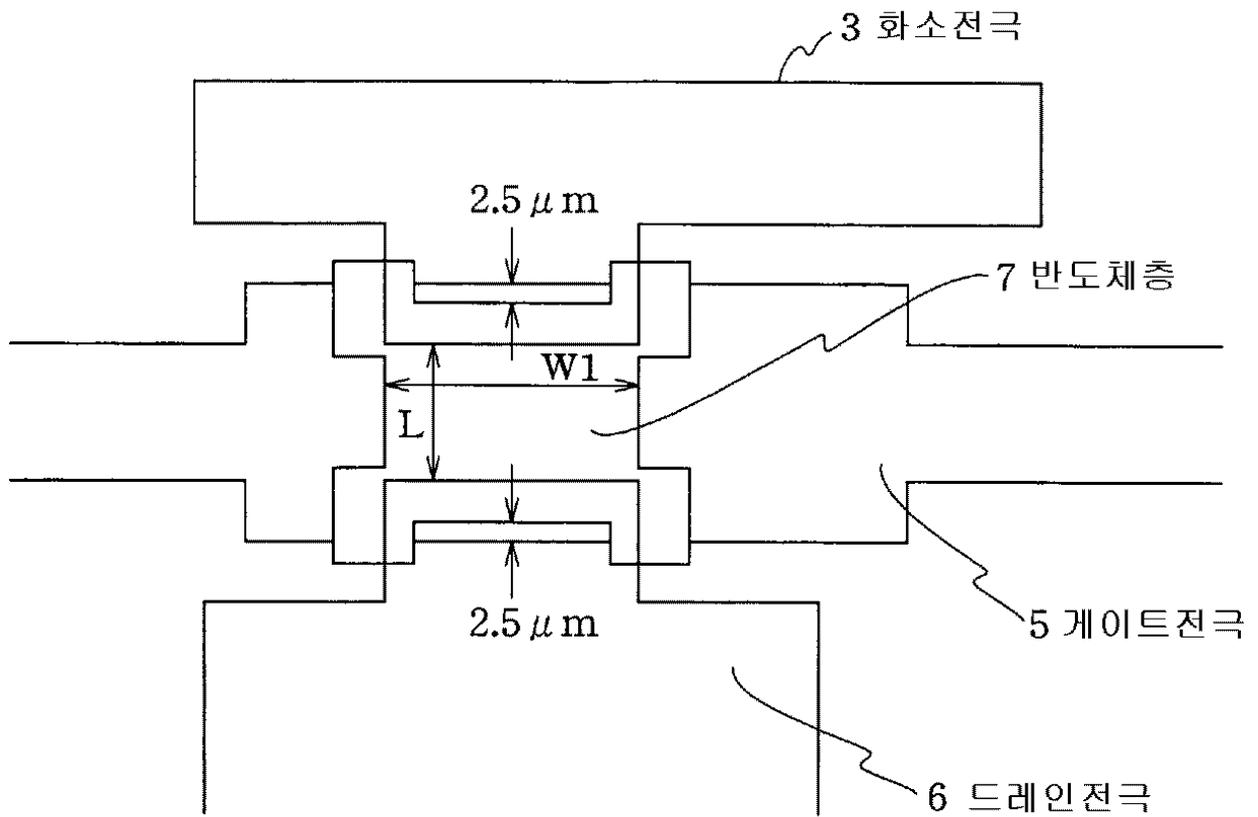
액정저항을 VS 장기간의 잔상

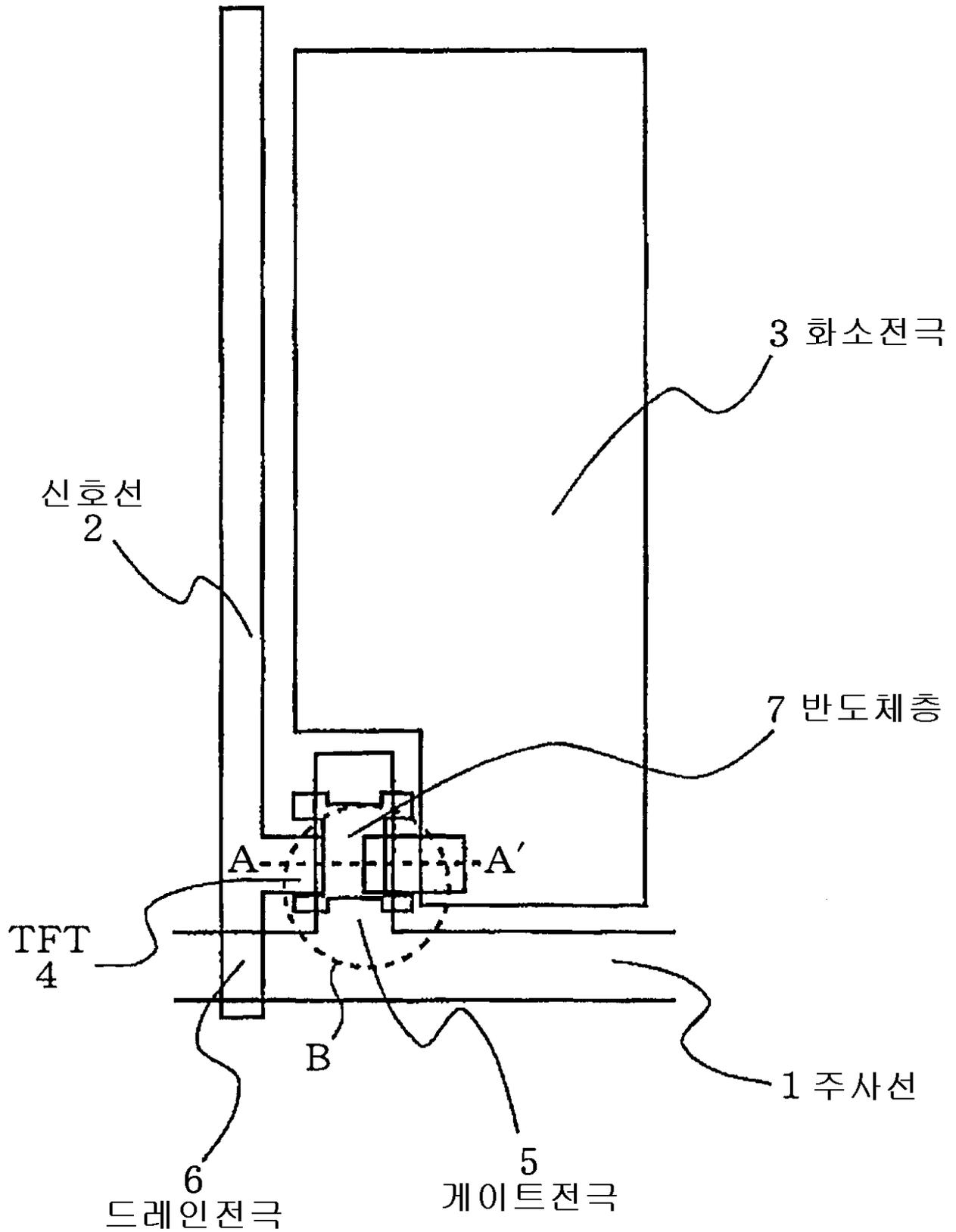


17

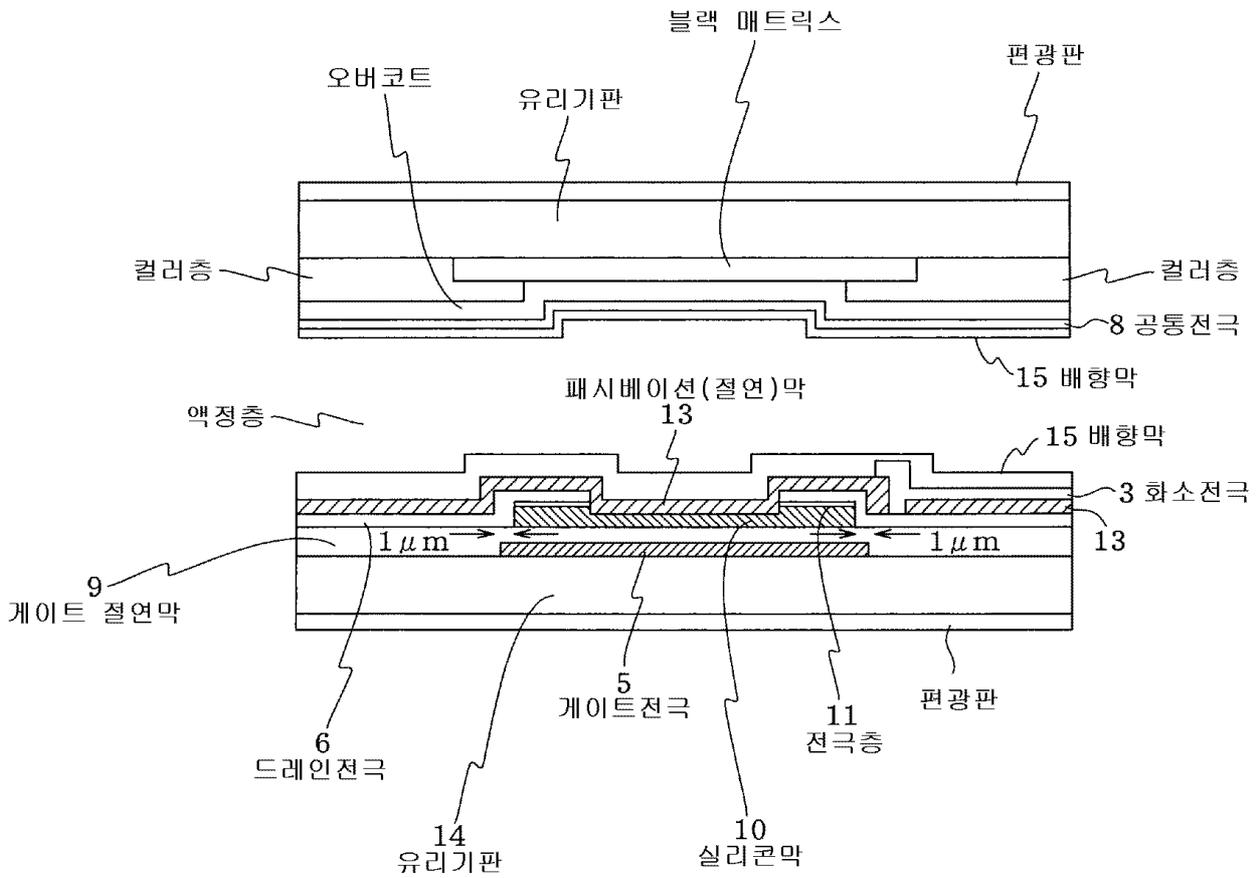


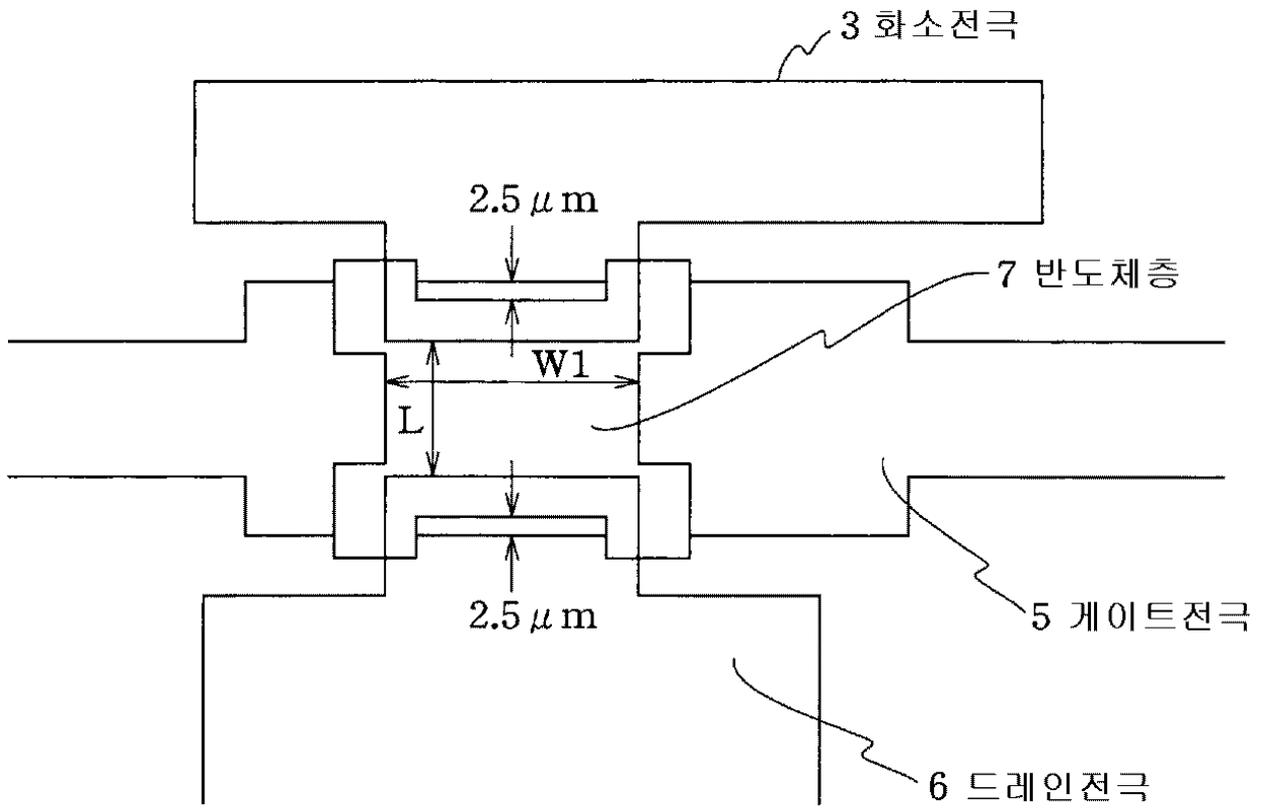
18



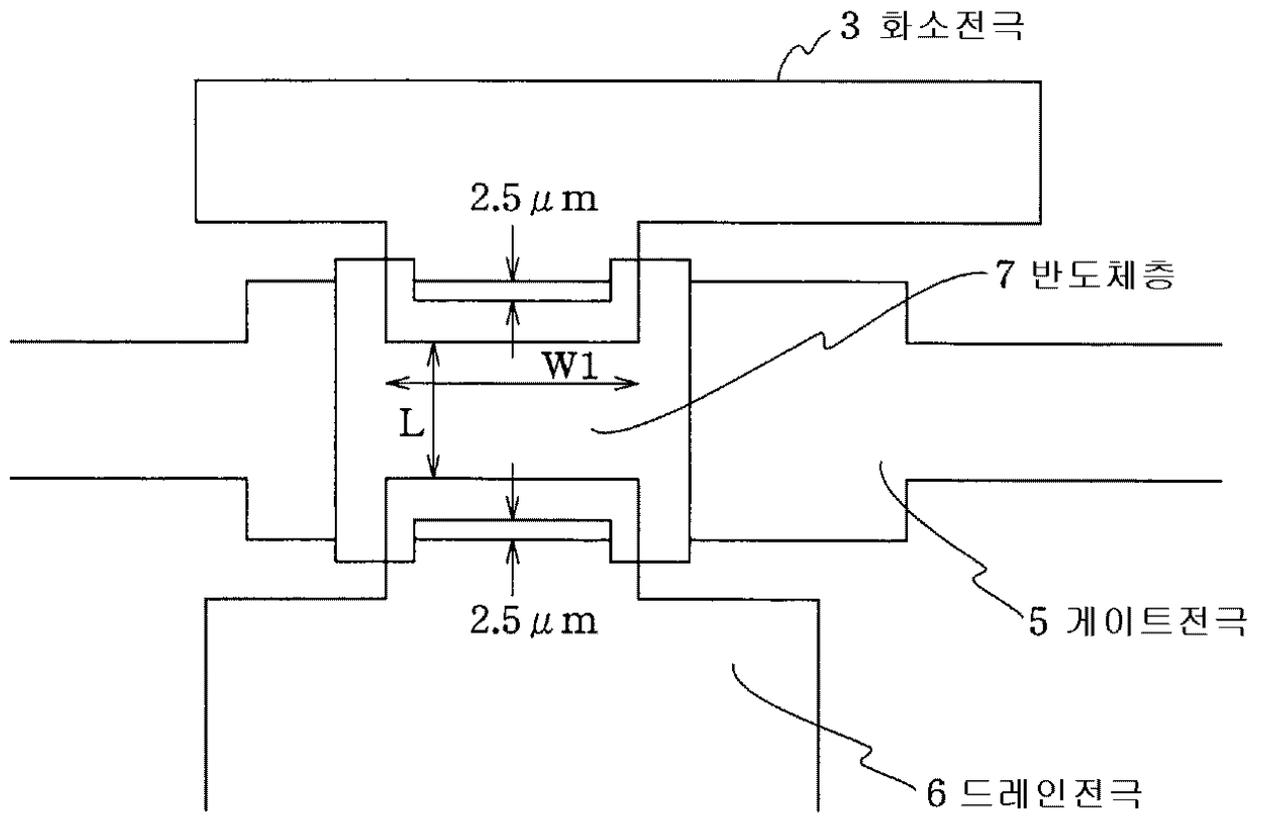


21

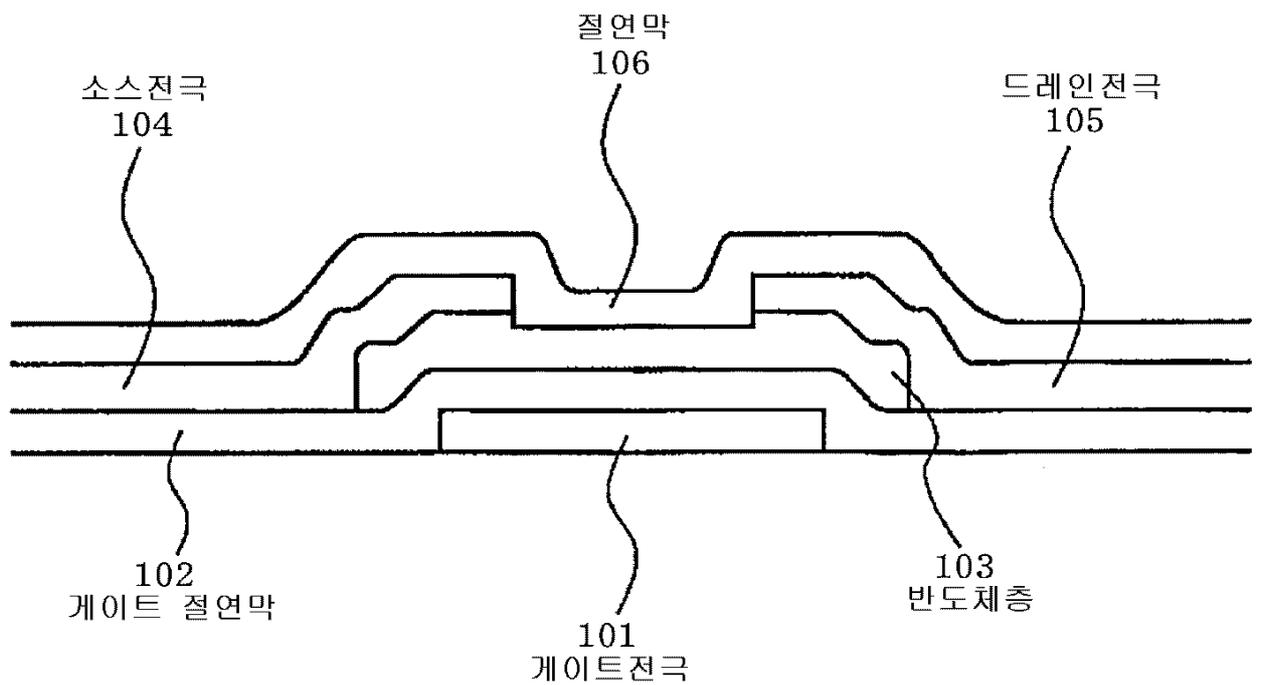


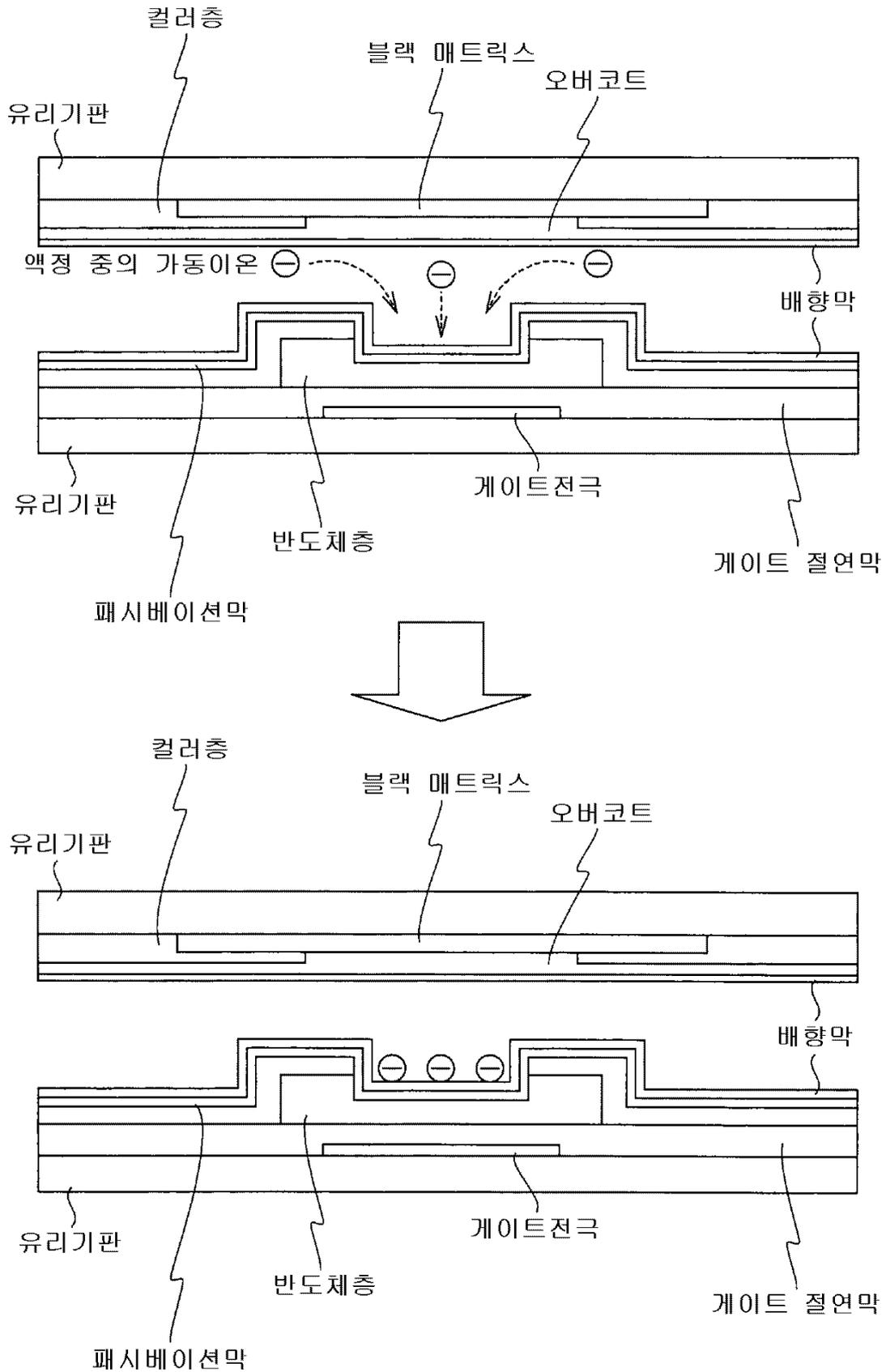


23



24





| | | | |
|----------------|--|---------|------------|
| 专利名称(译) | 液晶显示装置及其制造方法 | | |
| 公开(公告)号 | KR1020010062554A | 公开(公告)日 | 2001-07-07 |
| 申请号 | KR1020000079192 | 申请日 | 2000-12-20 |
| [标]申请(专利权)人(译) | NEC液晶技术株式会社 | | |
| 申请(专利权)人(译) | 日元号技术可否让这个夏 | | |
| 当前申请(专利权)人(译) | 日元号技术可否让这个夏 | | |
| [标]发明人 | HANNUKI TAKAHISA 한누키타카히사 NISHIDA SHINICHI 니시다신이치 IHIDA SATOSHI 이히다사토시 KUROHA SHOUICHI 쿠로하쇼우이치 TAKAHASHI RYUJI 타카하시류지 MIURA SATOSHI 미우라사토시 | | |
| 发明人 | 한누키타카히사 니시다신이치 이히다사토시 쿠로하쇼우이치 타카하시류지 미우라사토시 | | |
| IPC分类号 | G02F1/13 G02F1/1368 G02F1/139 G02F1/1343 H01L21/336 G02F1/137 H01L29/786 G02F G02F1/136 H01L | | |
| CPC分类号 | G02F1/134363 | | |
| 优先权 | 2000321784 2000-10-20 JP 1999364544 1999-12-22 JP | | |
| 其他公开文献 | KR100394838B1 | | |
| 外部链接 | Espacenet | | |

摘要(译)

一种阵列基板，包括多个TFT，每个TFT具有形成在透明基板上的栅电极，栅极绝缘膜，半导体层和源电极/漏电极，以及布置成面对阵列基板的对向基板，栅极长度方向上的半导体层的宽度与栅极长度相同。 2 - 1 - 指数方面 基板，栅极，电极，半导体，源极，漏极，TFT，液晶，

