

2a

,

1a

1b

| | | |
|----|----|---|
| 2a | 5a | 1 |
| 2b | 5b | 1 |
| 6a | 9a | 2 |
| 6b | 9b | 2 |

*

1 : $1_1 \sim 1_m :$

2 : $2_1 \sim 2_n :$

3 : 4, 5, 8 :

6, 14 : $7_1 \sim 7_m :$

15 :

LED(Light Emitting Device)

(array)

가

LED가

,

LED

가

LED (portable phone) , 가 가 (pager), (cellular)

LED

가 LED (1) ()

LED 1 , , , 2 ,

가 LED (indium) (Tin) (oxide)(ITO) , 가 , 가

LED, LED가 가 가

가 EL 가 LCD

, 1 EL

1 가 , GND(0V) 가 VD(10V)

, 가 가 가 가

(RC) 가

가 가

가 LED 가 LED

2 가 1 , 1
 , 1, 2 , 1
 가 3 , 3
 2 , 1 2
 1 , 2 3
 가 , 1 2 3
 , 1 2 1, 3
 .

VC GND VT

.

1 / 1
 , 2

VT VC GND , VC GND
 가

가 ,
 1 2
 ,

1

2 5 1

VT(5)

VD(4)

GND(6)

2a 5a D1 Dm , S1 Sn , p(1,1) p(m,n)
 (15) , 가 (1) , 가
 (2) , (1) (2) (3)

V) (2) VP(8) GND(14) , Vp(8)(:10
 , GND(14)(:0V) (2₁ ~ 2_n)

(1) VD(4) GND(6) , VD(4) 1₁ 1_m
 D(6) D1 Dm (7₁~7_m) , VD(4) GN
 VT(5)(:5V) .
 (2) (2₁~2_n) (7₁~7_m) /
 (on/off) (3) .
 2b 5b 2a 5a (15)
 2b 5b T(11) , T1(12) VD(4) GND(6)
 , T2(13) VT(5) .
 S1 GND(14) VP(8)
 (15) P(1,1) P(m,1) S2가 GND(14)
 VP(8) P(2,2) P(2,m) .
 , 2a, 2b GND(14) 0V V
 P(8) .
 10V 2₂ 2_n S2 Sn 가 .
 Dm 1₁ 1_m 0V 7₁ 7_m D1 Dm , D1
 1,1) 2a, 2b 1₁ 1_m T1(12) 가 P(
 P(1,m) .
 P(2,1) P(m,1), P(1,2) P(1,n), P(m,2) P(m,n) 0V가 가 ,
 가
 2a .
 3a, 3b 2a, 2b 0V , 2₂ 2_n
 VP(8) S2 Sn VP(8) 가 .
 7₁ 7_m VT(5) .
 , VT(5) T2(13)
 가 .
 가 / 0V(10V) 10V(0V) ,
) / 가 가 / T2(13) 가 (5V ,
 가 가 / 5V 0V 10V .
 T2(2)

3a, 3b , p(1,1) p(1,m) VT(5)
 , VT(5) .

2₂ 2_n 1₁ 1_m VP(8) VT(5) D1 Dm .

1₁ 1_m 2₂ 2_n D1 Dm
 VP(8) VT(5)

(21) VT(5) 가
 VP(8) VT(5)

가 .

4a GND(0V) VP(8)

4a, 4b S2가 1₂ 1_m 7₂ 7_m
 D2 Dm .

0V 10V , 5V 10V 가
 p(2,2) p(2,m) (15) .

, 4a 3a 가 가 .

10V 가 2₂ S2

D2 Dm 1₂ 1_m 7₂ 7_m D2 Dm ,
 GND(6)(:0V) .

4a, 4b 1₂ 1_m T1(12) p(2,2) p(2,m)
 , 4a, 4b 0V가 가 .

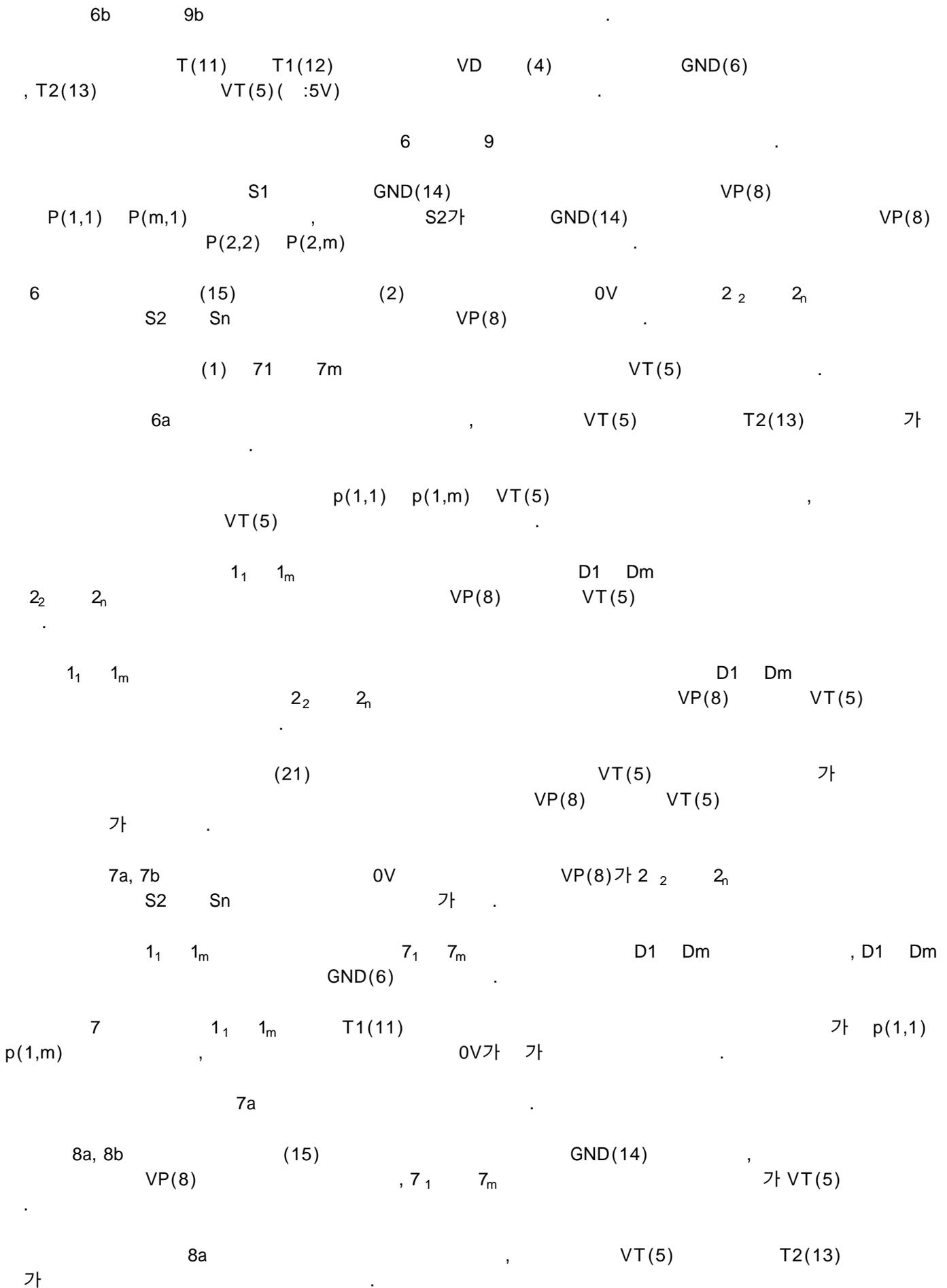
4a, 4b (15) .

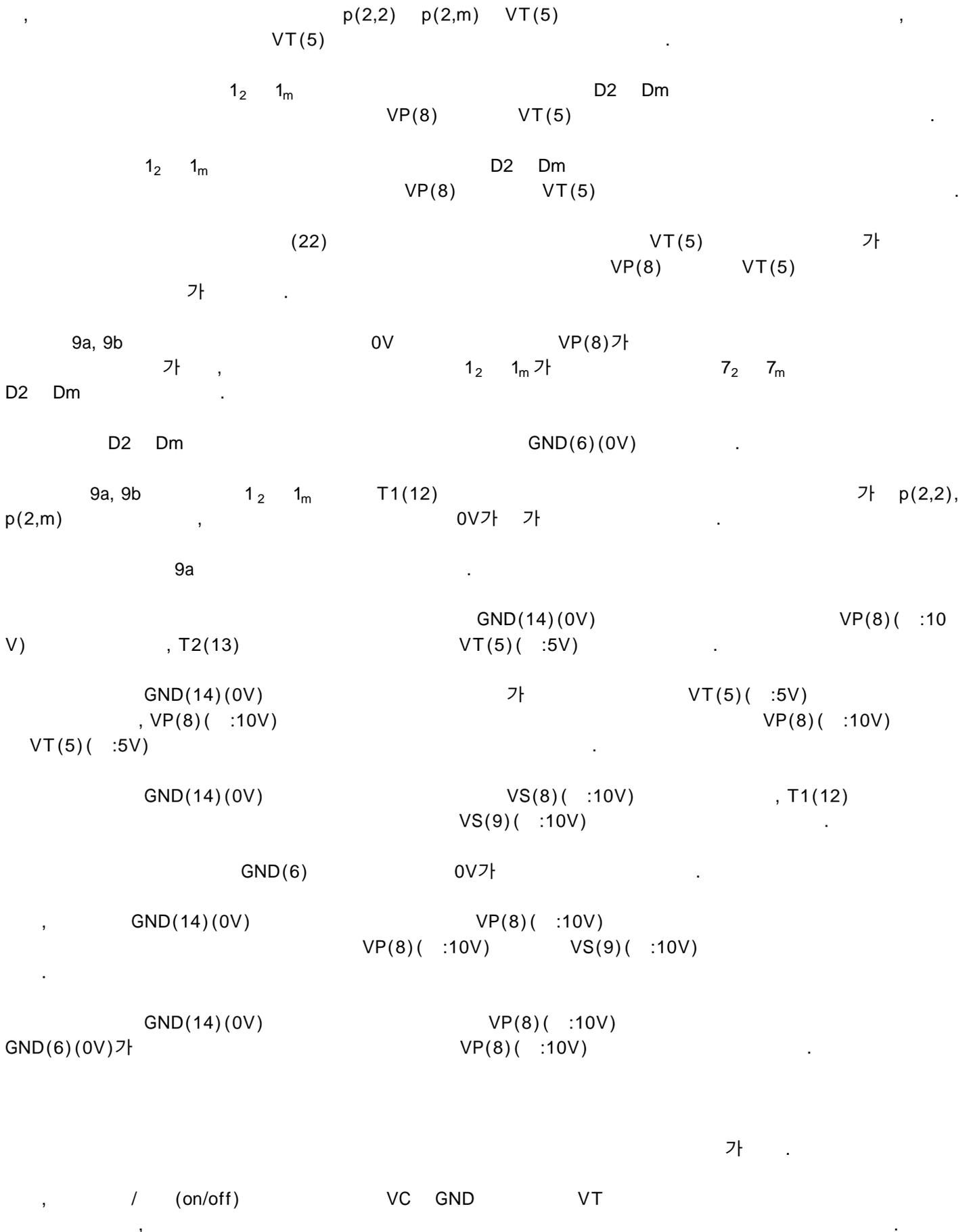
5a, 5b 4a, 4b GND(0V) ,
 VP(8) 7₁ 7_m
 VT(5) .

가 VT(5) T2(13) 3a, 3b

VT(5) p(2,2) p(2,m) VT(5) ,

1₂ 1_m D2 Dm
 VP(8) VT(5) .





, LED 가 ,

가

(57)

1.

가 1 , 1
2 , 1, 2 1

가 3 , 3
2 ,

1 2 1 , 2
3

1 2 1, 3 가

2.

1 ,

2 가

3.

1 , 1 /
2

4.

3 ,

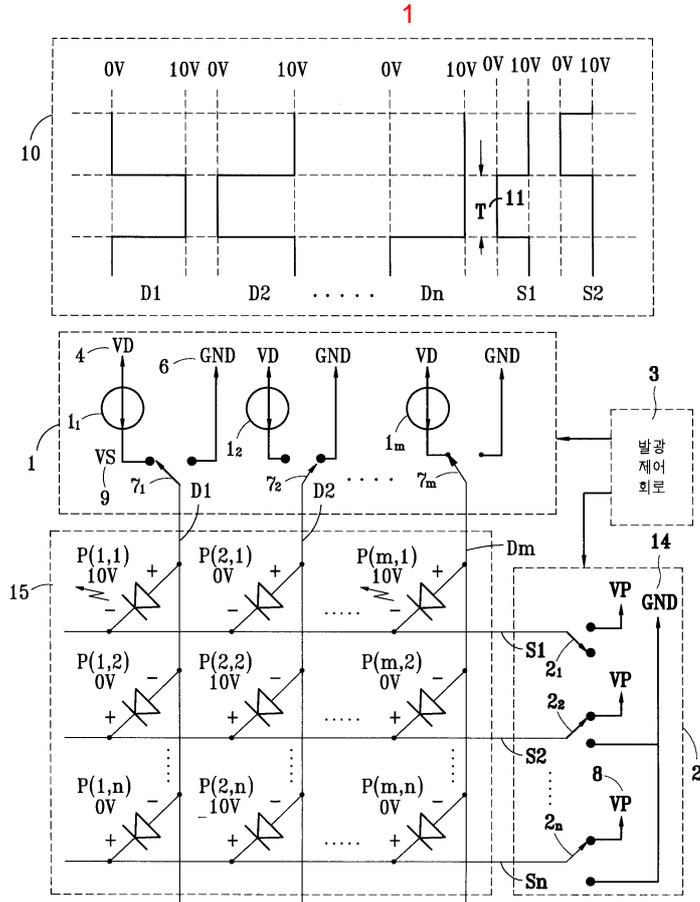
가

5.

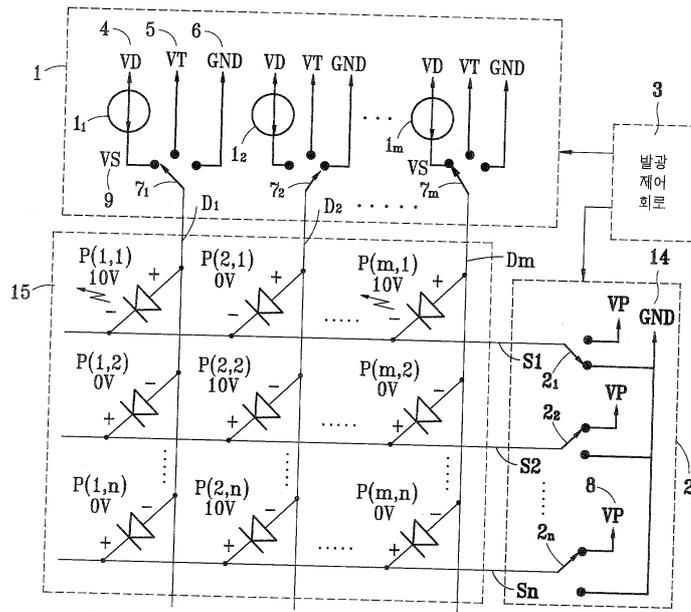
4

2

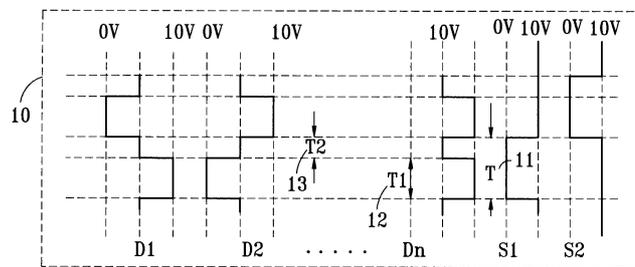
가



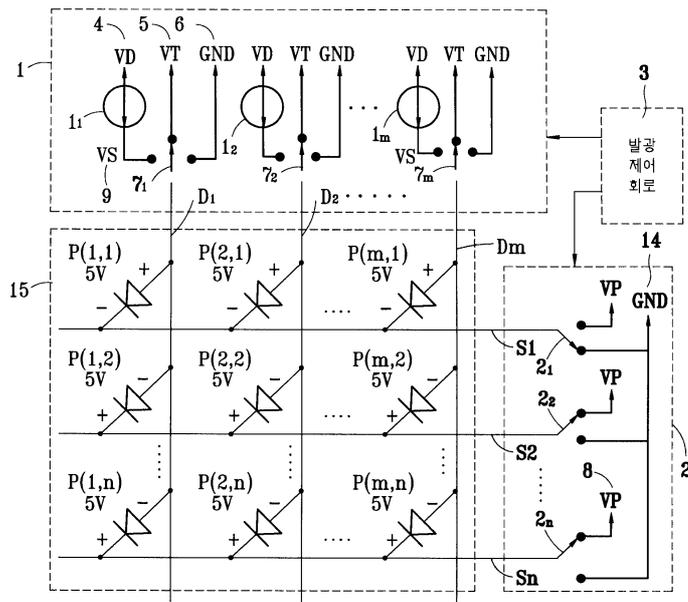
2a



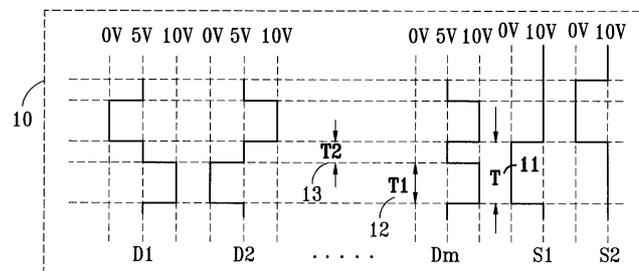
2b



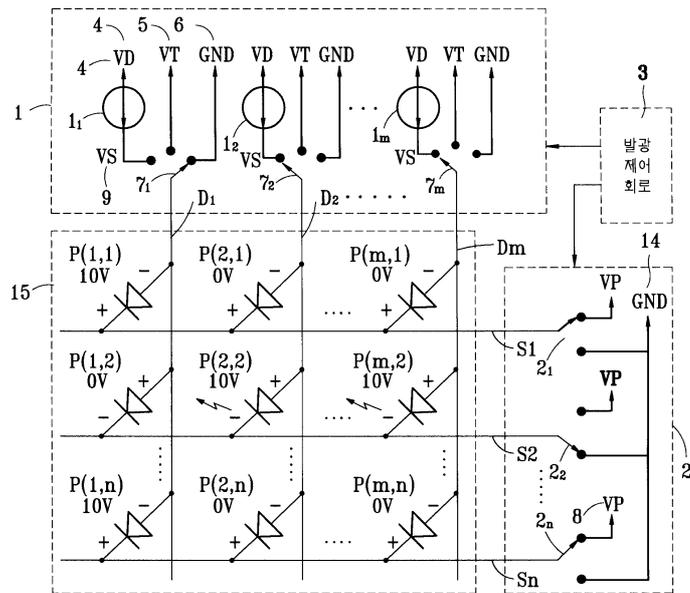
3a



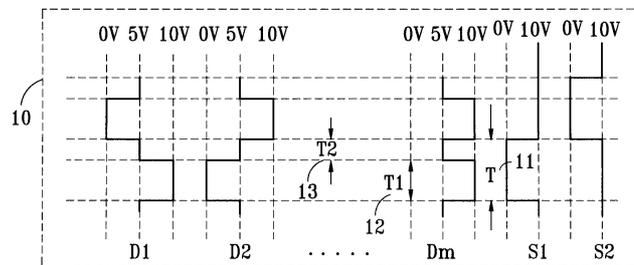
3b



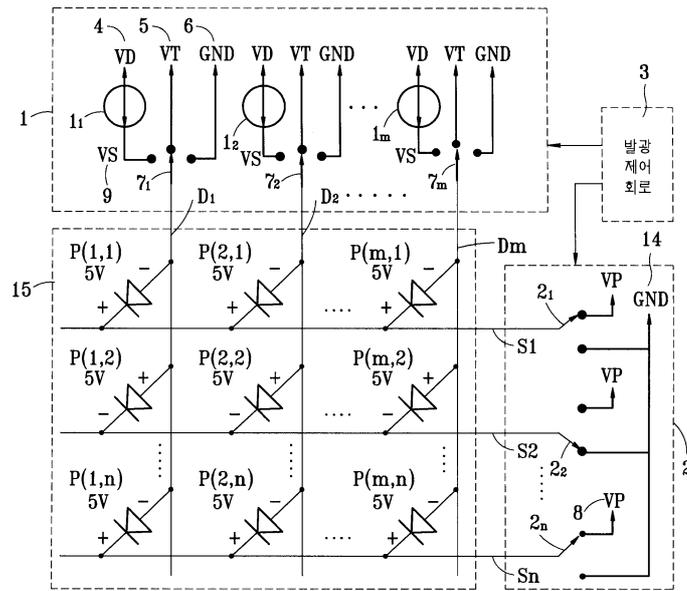
4a



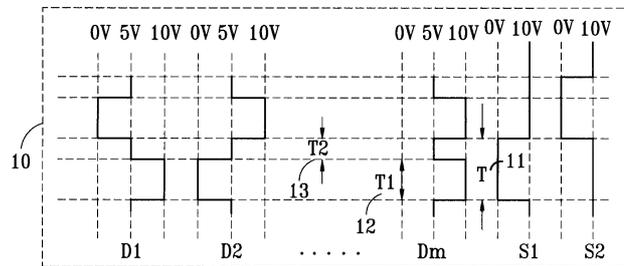
4b



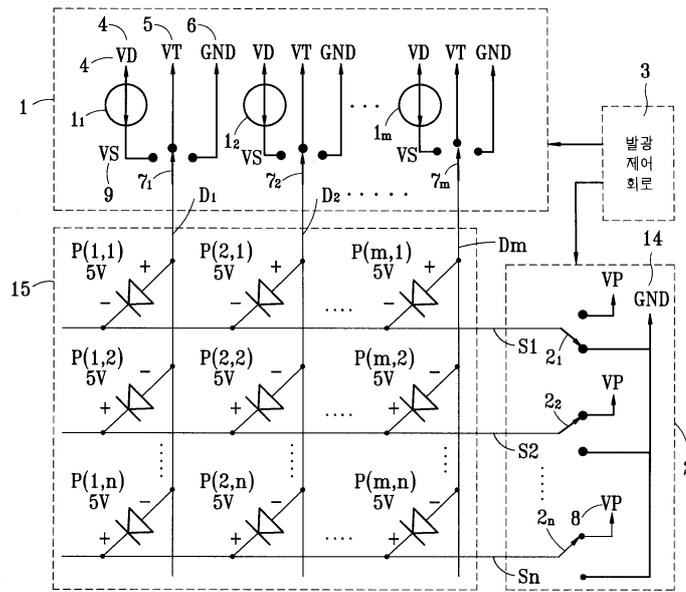
5a



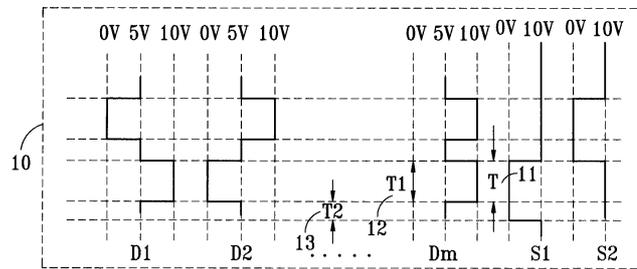
5b



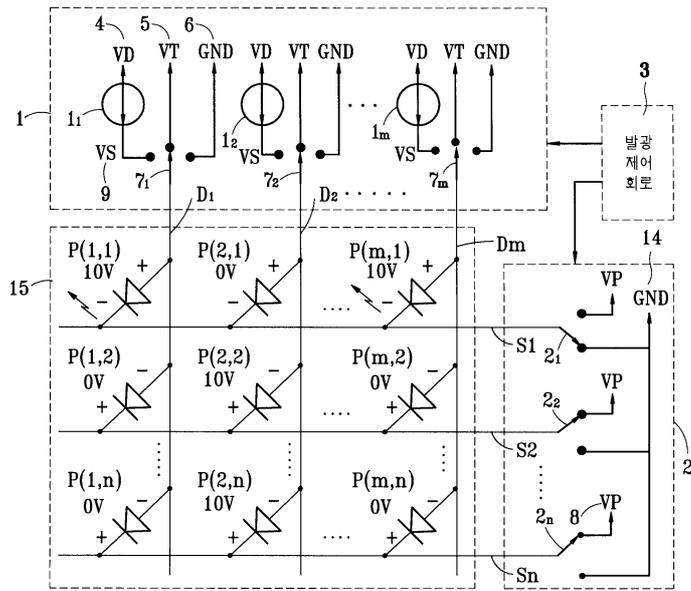
6a



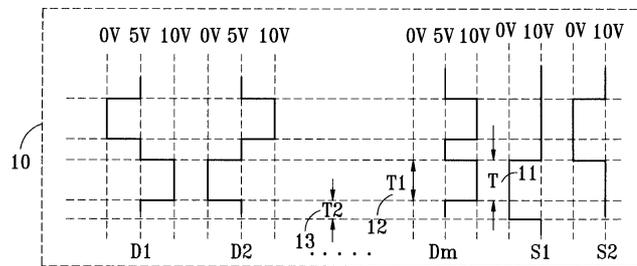
6b



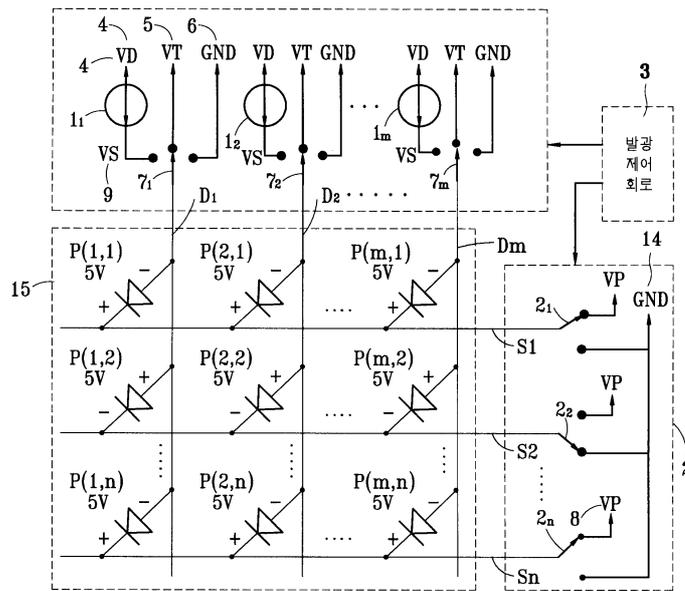
7a



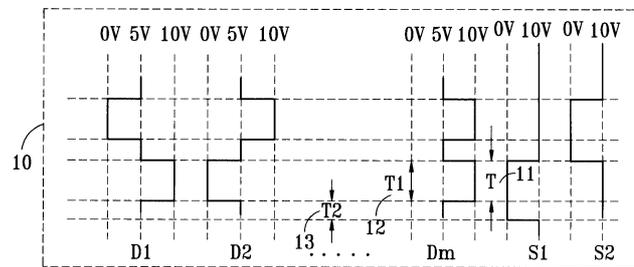
7b



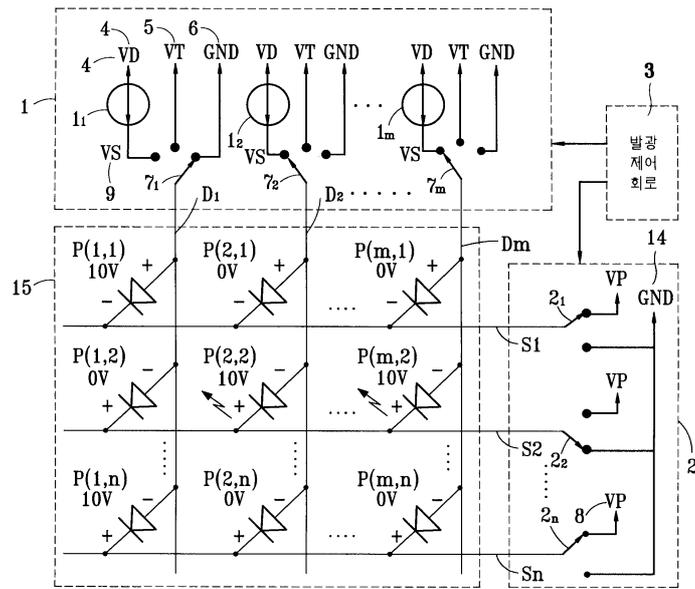
8a



8b



9a



9b

