

(19) (KR)  
(12) (A)

(51) 。 Int. Cl.<sup>7</sup> (11) 10-2004-0034439  
G09G 3/30 (43) 2004 04 28

(21) 10-2003-0071321  
(22) 2003 10 14

(30) JP-P-2002-00302740 2002 10 17 (JP)

(71) 가 가 1105  
가

(72) 가 4-3146-7

(74)

:

(54)

TFT 가 ,  
(10) , TFT(Tr1), TFT(Tr3),  
TFT(Tr4), TFT(Tr2), TFT (C1),  
TFT(Tr5), EL (E1) (C1)  
, TFT(Tr5)가 , TFT(Tr2)  
가 EL (E1) .

5

1

2

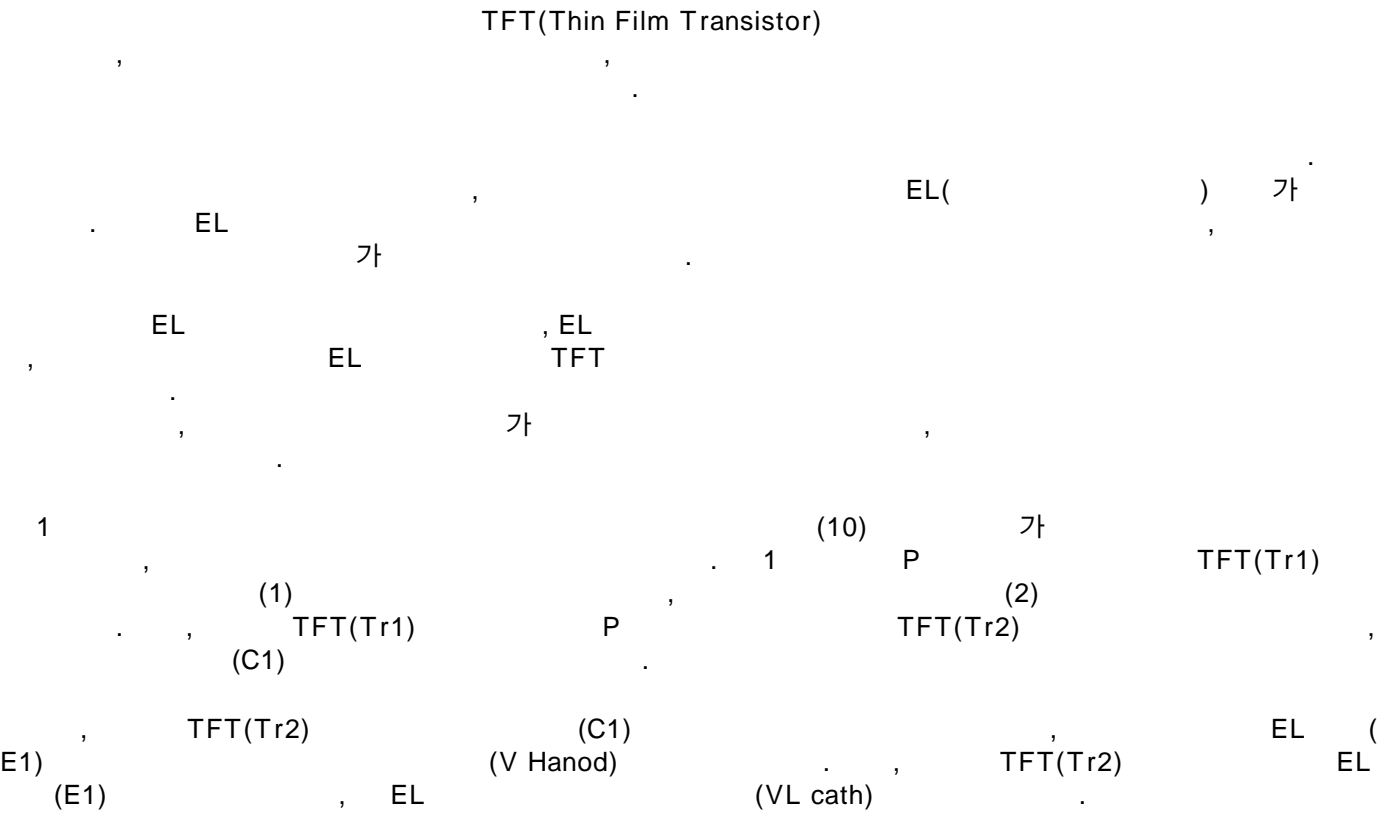
3 2

4		.
5		1 .
6	2	.
7	3	.
8	4	.
9	5	.
10	6	.
11	7	.

1 :

2 :

10 :



1 TFT(Tr1) (Vdata) (Select) TFT(Tr1)

1) , TFT(Tr1) 가 , (C1)가 , TFT(T

r2) , EL , TFT(Tr2) EL (E1)

, TFT(Tr1) 가 , TFT(Tr1)

가 , TFT(Tr2) (C1) ,

, EL (14) .

, EL TFT

가 ,

, TFT TFT

EL , TFT , TFT

, , TFT

, TFT

, 2

4 TFT

, 2

, TFT

1

Sang-Hoon Jung, Woo-Jin Nam and Min-Koo Han, 'A New Voltage Modulated AMOLED Pixel Design Compensating Threshold Voltage Variation of Poly-SiTFTs', SDI, International Symp. Proc., P. 622-624, 2002.

2, P TFT(Tr1) (1) TFT(Tr1) TFT(Tr2)

(10) P TFT(Tr3), TFT(Tr4) P TFT(Tr2) (VH a)

TFT(Tr2) EL (E1) TFT(Tr2) EL (E1) EL (E1)

(C1)가 (VLcath) TFT(Tr2) EL (E1)

TFT(Tr1) TFT(Tr2) TFT(Tr3) TFT(Tr4) TFT(Tr3) TFT(Tr4)

i

TFT(Tr1), TFT(Tr2) (C1) 1 2

, TFT(Tr3) TFT(Tr4) i , TFT(Tr3) TFT(Tr4)

(Va=Vdata)가 b (Vb) (Va)가 b (Vb) TFT(Tr3) TFT(Tr4)

, TFT(Tr4) a (Vb) TFT(Tr3) TFT(Tr4)

1 (C1) 2 (C1)

3 Select 2) TFT(Tr1) TFT(Tr4) (1) (C1)

b (Vb) Vdata 가 TFT(Tr4) (Vdata) (C1)

2 TFT(Tr3) TFT(Tr4) (2) (Vdata) (2)

(C1) TFT(Tr3) (C1)

3 (1) Select

, TFT(Tr1) , 가 4 , (Vdata)  
 , 1 2 , 2 3 (C1)  
 TFT(Tr2) 1 EL (E1) (C1) TFT(Tr2)  
 , TFT(Tr3) i ,  
 TFT(Tr4) i (C1)  
 , 2 , TFT(Tr2) TFT(Tr3)  
 , (C1)  
 C1) EL TFT(Tr2) (E1) ( ) , (TFT(Tr2) ,  
 EL (E1) TFT  
 , 2 , TFT  
 , 가 2 , TFT  
 , 2 (C1)  
 C1) , b , TFT(Tr1) Vdata 가 , TFT(Tr4) i (TFT(Tr2) ,  
 가 , TFT(Tr2) 가 (Vdata) ,  
 (Tr2) EL TFT(Tr2) ( ) 가 , TFT  
 TFT N 가 , 2 , EL , TFT P 가 ,  
 , ,  
 , TFT 가 ,  
 ,  
 , TFT , TFT , TFT , TFT ,  
 , TFT ,  
 , , TFT  
 , 2 , ,  
 , 5 1 , (10)  
 TFT(Tr3) i 1 TFT(Tr1 Tr5) P , TFT(Tr4) i ,  
 @ .

5 , TFT(Tr2) , EL (E1) TFT(Tr5)  
, TFT(Tr5) TFT(Tr2) EL (E1)  
, TFT(Tr5) (C1)  
EL (E1) 가  
.

4 , 4 Select Vdata 3 TFT  
, (Vcont) , (Vcont) 1 2  
.

5 , (Vcont) TFT(Tr5) ,  
TFT(Tr5) TFT(Tr5)가 , EL (E1) TFT(Tr2)가 ( )  
) .

6 2 , (10) 2  
TFT(Tr1 Tr4, Tr6) P , TFT(Tr2) (C1)  
, , TFT(Tr3) , TFT(Tr6)  
TFT(Tr6) , TFT(Tr6)  
(C1) .

4 , 1 2 (Vcont) ,  
TFT(Tr6) (C1) ,  
TFT(Tr2) , TFT(Tr2)  
1) 가가 ( ) TFT(Tr6) EL (E  
) .

7 3 , (10) 3 , EL (E1)  
E1) TFT(Tr1 Tr4, Tr7) P , EL (E1) TFT(Tr7) 가  
, EL (E1) TFT(Tr7)  
) 7 4 , 1 2 (Vcon  
t) , TFT(Tr7) , EL (E1) TFT(Tr2)가  
TFT(Tr7) TFT(Tr2) TFT(Tr7) TFT(Tr7) EL (E1) 가 TFT(Tr7)  
) .

8 4 , (10) 4 , EL (E1)  
TFT(Tr1 Tr4) P , (VLanod)  
(VHanod) , (VLanod) VHanod  
, (S1) VHanod > VLanod  
VLanod

8 4 , 1 2 (Vcon  
t) , (S1) , EL (S1) 가 (VLanod) ,  
(S1) , EL 가

8 , TFT(Tr2)가 ,  
(VLanod) (VLcath) , EL (E1) 가  
(S1) EL (E1) 가  
.

8 , (VLanod) (S1)  
, (VLanod) ,

, EL (E1) 가 (VHanod)  
 , EL (E1) 가 ( ) .  
 9 5 TFT(Tr1 Tr4) P (10) . 5 EL (E1)  
 (VLcath) , (VHcath) VLcath  
 (S2) ,  
 VHcath VLcath<VHcath .  
 t) 9 4 , 1 2 (Vcon  
 (S2) , EL (S2) (VHcath) . ,  
 .  
 9 TFT(Tr2)가  
 (VHanod) (VHcath) , EL (E1) 가  
 (S2) EL (E1) 가  
 .  
 , 9 (VHcath) (S2)  
 , (VHcath)  
 , EL (E1) 가 (VLcath) ,  
 , EL (E1) 가 ( ) .  
 10 6 TFT(Tr1 Tr3, Tr8) P (10) . 6  
 (D1)가 TFT(Tr3)  
 (D1) TFT(Tr2) (D1) (D1)가 (D1) (C1)  
 2 TFT(Tr2) .  
 10 TFT(Tr8) (VHanod) TFT(Tr2) TFT(Tr8)  
 , TFT(Tr8) (C1) TFT(Tr2) EL (E1)  
 , EL (E1) 가  
 .  
 10 4 , 1 2 (Vcont  
 ) TFT(Tr8) TFT(Tr8)가 , EL (E1) 가 T  
 FT(Tr2)가 ( ) .  
 , 5 9 TFT(Tr4) 10  
 (D1) .  
 7 11 7 , (10)  
 , TFT P  
 (VLcath) N TFT(Tr9) TFT(Tr2)  
 .  
 11 TFT(Tr2) TFT(Tr10) (VHanod)  
 , 10 TFT(Tr8)  
 .  
 11 4 , 1 2 (Vcont  
 ) TFT(Tr9) , TFT(Tr10) .

[illegible]

이때, TFT가, (2)에 따라, Vdata를 출력하는 동안, EL가

(57)

1.

FT , TFT TFT TFT T T

TFT , TFT T

TFT ,

TFT

TFT ,

TFT

2.  
1  
TFT , TFT .
3.  
1 2 , TFT .
4.  
3 TFT , TFT 가 , .
5.  
1 2 , TFT .
6.  
5 TFT , , 가 가 , .
7.  
1 2 , TFT , .
8.  
1 , TFT , .
9.  
1 , , TFT .
10.  
1 , , .
11.  
1 , , 가 .
12.  
1 , , 가 .
13.  
1 , , 가 , .
14.  
1 , , 가 , .

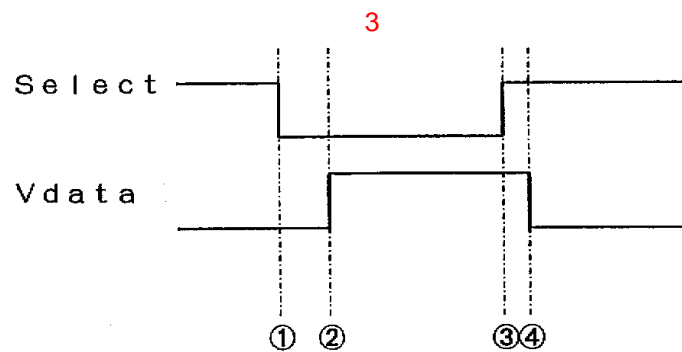
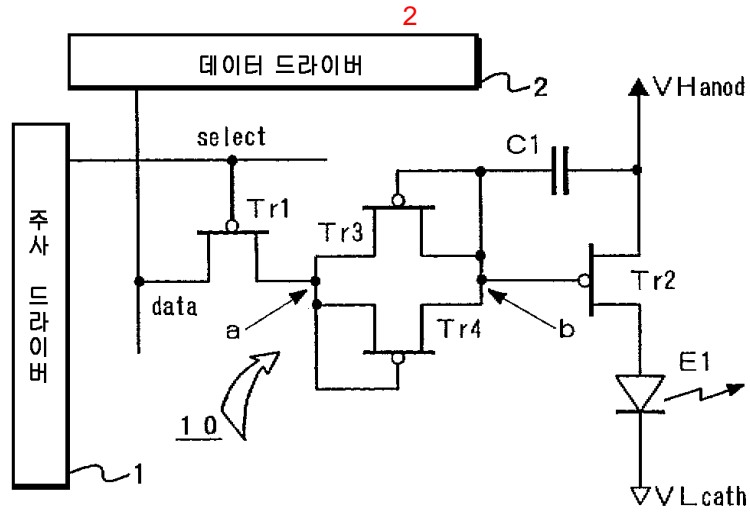
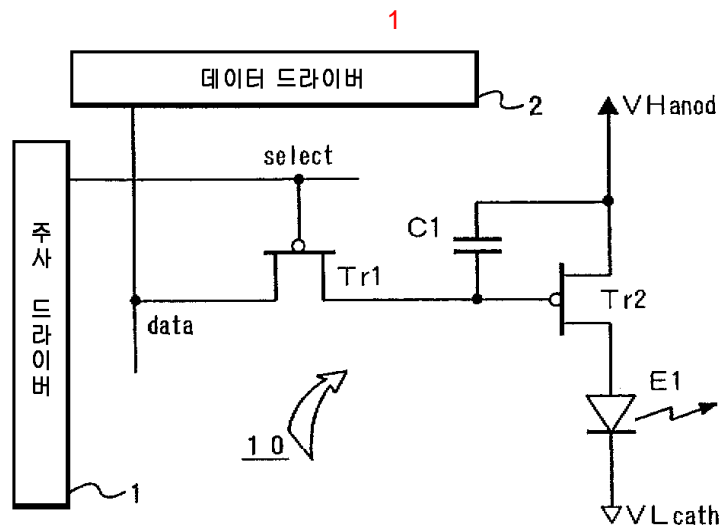


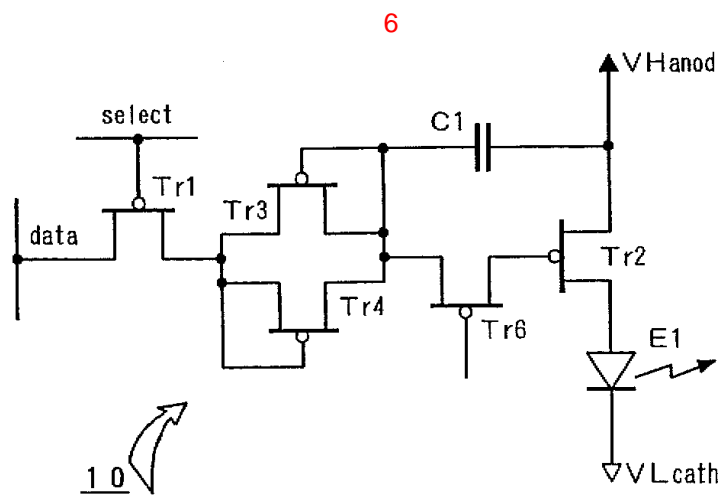
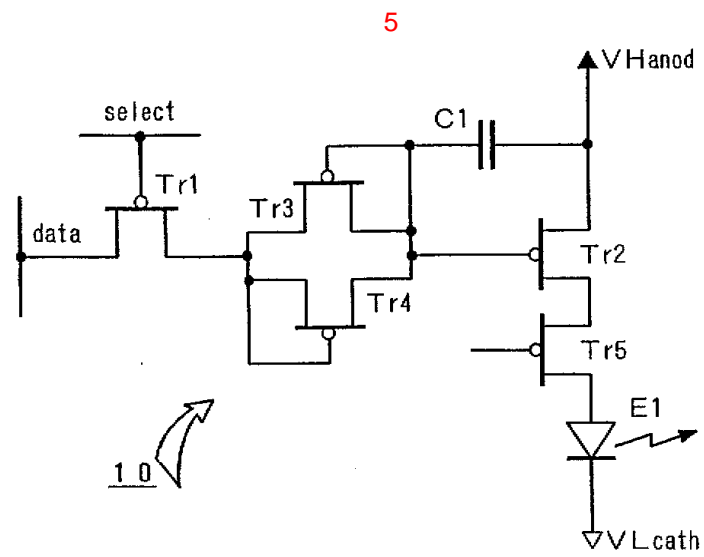
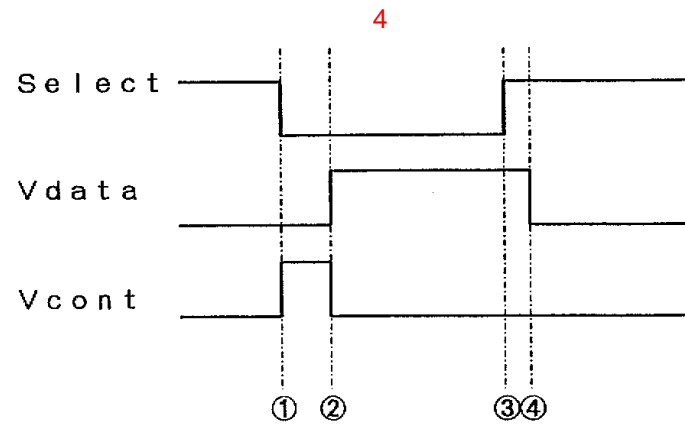
15.

2 , TFT , TFT가 TFT

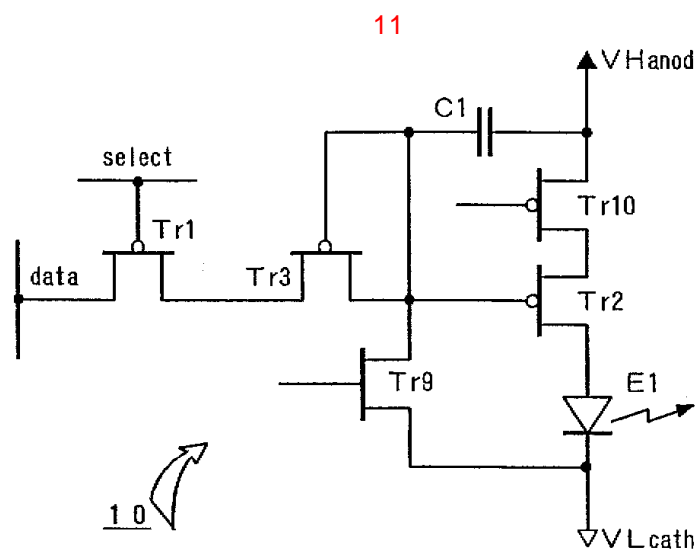
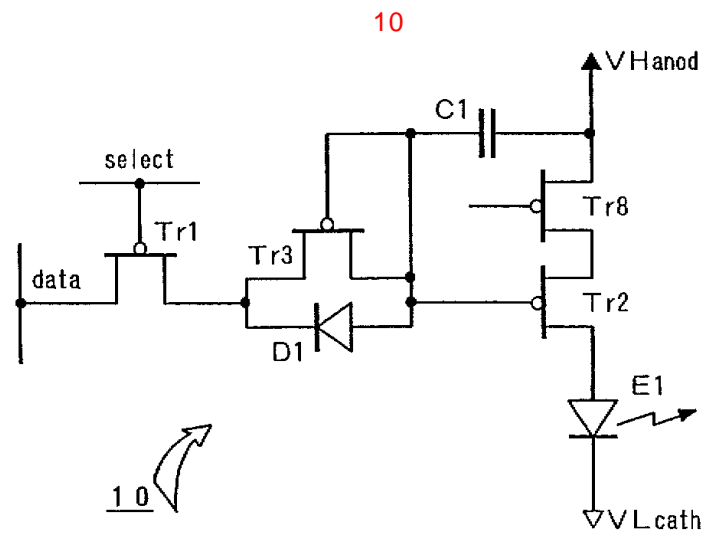
16.

1 , EL









专利名称(译)	有源型发光显示器		
公开(公告)号	<a href="#">KR1020040034439A</a>	公开(公告)日	2004-04-28
申请号	KR1020030071321	申请日	2003-10-14
[标]申请(专利权)人(译)	东北先锋股份有限公司		
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当前申请(专利权)人(译)	先锋sikki古兰经东宝		
[标]发明人	OHATA HIROSHI		
发明人	OHATA,HIROSHI		
IPC分类号	G09G3/30 H01L51/50 G09G3/32 G09G3/20		
CPC分类号	G09G2310/061 G09G2300/0842 G09G2300/0861 G09G2320/043 G09G2300/0809 G09G2320/02 G09G3/2011 G09G2310/06 G09G2300/0866 G09G3/3233 G09G2300/0819		
代理人(译)	金斗KYU		
优先权	2002302740 2002-10-17 JP		
外部链接	<a href="#">Espacenet</a>		

#### 摘要(译)

本发明的目的是在使用阈值电压校正方法的具有像素配置的有源发光显示装置中，在复位周期中抑制过量电流流过驱动TFT。在一个像素10中，控制TFT Tr1，用作阈值电压产生元件的TFT Tr3，用作复位元件的TFT Tr4，驱动TFT Tr2，驱动TFT的栅极电压用于保持电容器C1的电容器Tr1，用作在复位操作中被控制为关断的电流抑制装置的TFT Tr5，以及EL元件E1。在将电容器C1的端电压复位到预定电位的复位操作期间，控制TFT Tr5处于截止状态，并且将由于驱动TFT ( Tr2 ) 的操作引起的过电流提供给EL元件E1。并且被阻止被给予。五

