

(19) (KR)
(12) (B1)

(51) 。 Int. Cl. ⁷ (45) 2003 04 10
G02F 1/136 (11) 10 - 0379565
(24) 2003 03 27

(21) 10 - 2000 - 0037743 (65) 2001 - 0015145
(22) 2000 07 03 (43) 2001 02 26

(30) 11 - 193720 1999 07 07 (JP)

(73) .
20

(72) 가 7 - 101

(74)

:

(54)

(1) (5) , (5) 가 (3), (4)
(2) (6) (9) , (3),
(4) (11), (12) , (9), (11) (
12) , (7)
(8) , (11), (12) (17) .

1

1 2 I - I .

2 1 .

3 4 III - III .

4 2 .

5 3 .

6 .

7 .

<

1: 2: 3: 4: 5:

6: 7:

8: 9: 10, 23:

11: 12: 13, 21: 14:

15, 26: 16: 17:

24: 25: 27:

28: 29: 31:

32: 33: 34:

, .

7 , (101) (105) , (106) (106) (109) (105) , n (103) (104) , (104) (102) (103) (104) , (104) (111) (112) (103) , n 10¹⁶ / cm³ 가 .

(109) (105) (110) . (110)
 (111) (116) , (116)
 (111) (113) .
 (112) , (115) . , (112)
 (114) (112) , (110)

7
(103) (104) , n 10⁻¹⁶ /cm³ ,
(105) (102) (106) (103) (104)

(lon)

10^{14} /cm³ 10^{15} /cm³ ,
가 . ,

가

가 .

IPS

10^{14} /cm³ 10^{15} /cm³
가 .

가 .

가

ITO (ITO) IZO (IZO)

,
 .
 ,
 ,
 ,
 .
 1 2 , 1 2 I - I 1 . 1 2 , 1 2
 (5) (3) (4) (5) (2) (6) (3) (4)
 (9)
 (4) , (11) (12) , (9),
 (11) (12) , (7)
 , (8)
 (3) (4) , (17) , (12)
 (7) (15) , (12) (14)
 (12) (10) (14)
 (13) (11) (10) (16)
 (11) (8)
 (1) , , 가
 (5) , PECVD ,
 (3) (4) , (5) (9)
 ,
 (6) , PECVD
 (9), (11) (12) ,
 , , (7) , ,
 , (8)
 (8) , , 가
 , , ,
 (7) , , 가 ,
 , , , ,
 3 4 2 , 3 4 III - I
 II , IPS , 가

1

,

.

(3) (4) (17) (12) (3
 4) (33)가 (12), (34) (12)
 (33) , , , ,
 (7) , , , (8)

(12) (33) (31) (12) (1
 2) (33) (10) (31)
 (13) (11) (10) (16)
 11) (8) (31) (34)
 (32)

(31) (32) , , ,
 , , , 가 가
 .

5

3

.

(1) (21) (21) (1) (23)
 (23) (5) (5)
 (3) (4) (3) (4) (2) (6)
 (9)

(3) (4) (11) (12) (9),
 (11) (12) ,
 (7) (8)

(3) (4) (17) (24)
 (12) (24) (12) (29)
 (24) (29) (12)
 (26) (11) (24) (11) (12)
 28) (21) (23) (24) (21)
 (27) (24) (28) (11)
 (27) (21) (25)

(9), (11) (12) ,
 , , , (7) , , ,
 , (8) .

(8) , , , 가
 , , ,

(7) , , , 가 ,
 , , , , , , .

가 , 6 (40, 49) , (49)
 가 , (40) 1, 2 3 (40, 49) , (42, 43)
 , (42, 43) (46) , (40, 49)
 1, 2 (44, 45) , 1 (44) (47) .

가 , ,
 , 가 (Ion) , 가 .
 , 가 .

(57)

1.

1 ;

1 / ;

;

;

/ / ;

/ / ;

;

1 ;

.

2.

1 ,

3.

1 ,

1 .

4.

1 ,

‘ ‘ ‘ ‘ .

5.

1 ,

‘ ‘ ‘ ‘ .

6.

1 ;

;

1 ;

1 / ;

;

;

/ / ;

/ / ;

/ 1 ;

1 ;

2 .

7.

6 ,

‘ ‘ ‘ ‘ .

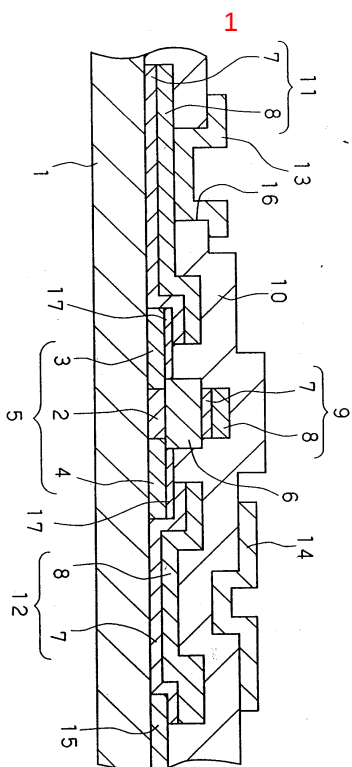
8.

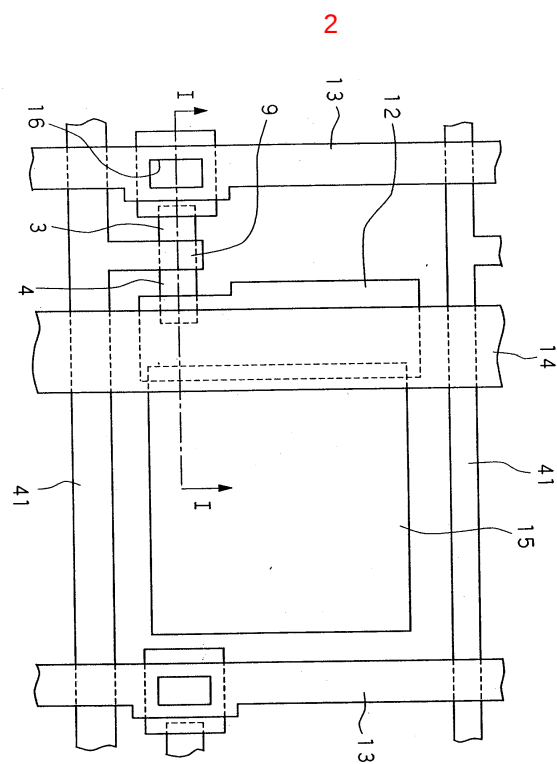
6

9.

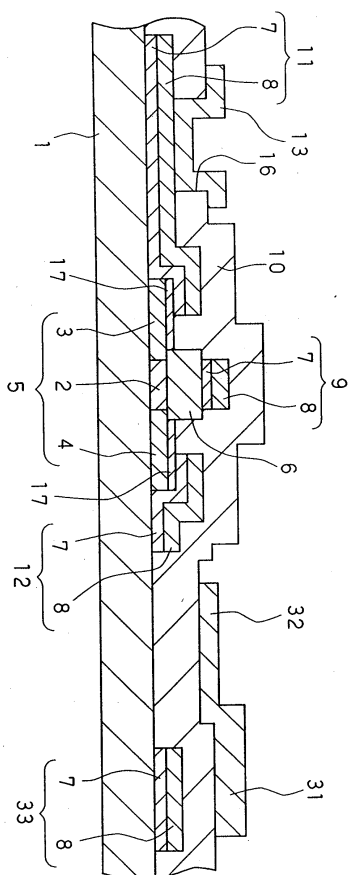
1

6

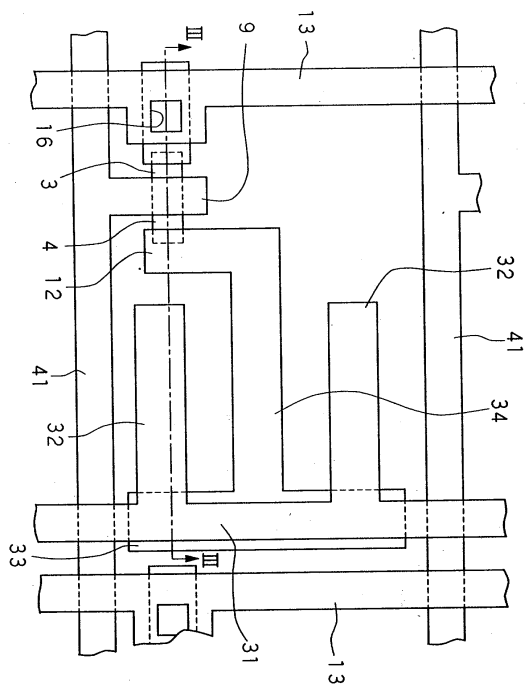




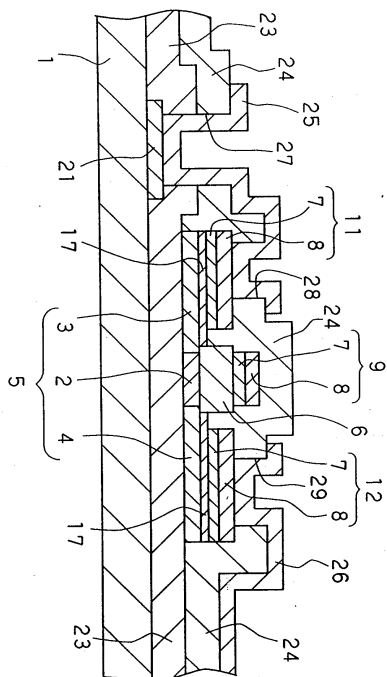
3



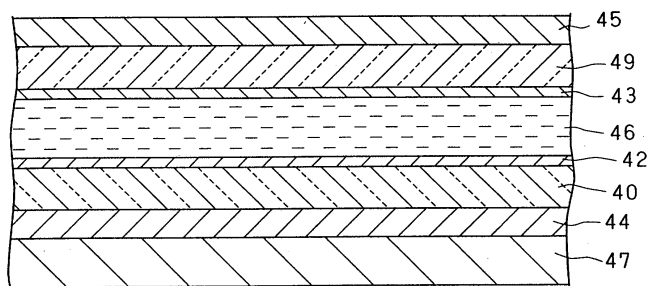
4



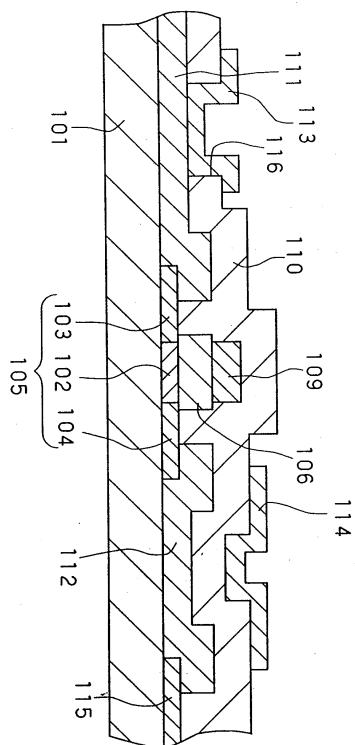
5



6



7



专利名称(译)	薄膜晶体管基板和液晶显示装置		
公开(公告)号	KR100379565B1	公开(公告)日	2003-04-10
申请号	KR1020000037743	申请日	2000-07-03
[标]申请(专利权)人(译)	乐金显示有限公司		
申请(专利权)人(译)	LG显示器有限公司		
当前申请(专利权)人(译)	LG显示器有限公司		
[标]发明人	CHAI KI SUNG		
发明人	CHAI,KI SUNG		
IPC分类号	G02F1/1368 G02F1/1365 G09F9/30 H01L29/786 G02F1/136		
代理人(译)	金勇 新昌		
优先权	1999193720 1999-07-07 JP		
其他公开文献	KR1020010015145A		
外部链接	Espacenet		

摘要(译)

要解决的问题：提供一种薄膜晶体管基板，其具有在接通时间内不会引起电流减小的优异特性，并提供使用该基板的液晶显示装置。解决方案：在该液晶显示装置中，在基板1上形成由多晶硅构成的半导体层5，在半导体层5中形成源区3和漏区4。在a上形成栅电极9。通孔部分2经由插入的栅极绝缘膜6，以及源电极11和漏电极12形成为分别连接到源极区域3和漏极区域4。栅电极9，源电极11和漏电极12具有双层结构，包括通过与多晶硅反应形成硅化物膜的金属下层7和用于控制金属的上层8。抵抗性。在源区3和漏区4的每个上表面上形成硅膜17。

