

(19)
(12)(KR)
(A)(51) 。 Int. Cl. ⁷
G02F 1/136(11)
(43)2001 - 0110181
2001 12 12(21) 10 - 2001 - 0030946
(22) 2001 06 02

(30) 2000 - 165449 2000 06 02 (JP)

(71) 가 가
가 가 4 6(72) 3550
가 460
가 8 14 - 5
3550
가 3 - 16 - 4

(74)

:

(54)

(,)
(a photo conductive current) ,

, , , ,

- 1 1 .
- 2 2 .
- 3 (a) 3 , 3
(b) 3 (a) A - A .
- 4 (a) 4 , 4
(b) 4 (a) B - B .
- 5 5 .
- 6 .
- 7 .
- 8 2 .
- 9 .
- 10 (a) PNL 가 GTM ,
10 (b) PNL 가 .
- 11 9 GL () GTM ,
11 (a) , 11 (b) (a) B - B .
- 12 DL () DTM , 12 (a)
, 12 (b) 12 (a) B - B .
- 13 CL CTM , 13 (a) , 1
3 (b) 13 (a) B - B .
- 14 () 가 .
- 15 14 .
- 16 9 () () .
- 17 IPS .

18 IPS

.

<

>

SUB1, SUB2 :

GL :

DL :

CL :

PX :

CT :

GI :

GT :

ASI :

SD1, SD2 :

PSV :

BM :

LC :

TFT :

TH :

g, d :

ITO :

GTM :

DTM :

CB :

CTM :

SHD :

PNL :

가

(TN)

가 (In - Plane Switching : IPS) 가, 63 - 21907

4345249 , WO91/10936, 6 - 160878

IPS TN , TN

IPS , M.Oh - e, M.Yoneda, K.Kondo Journal of Applied Physics, Vo1.82, No.2, 1997, pp. 5
28 - 535

IPS

ITO (Indium Tin Oxide)

IPS

가 IPS 가

「S.H.Lee, S.L.Lee, H.Y.Khn, " Asia Display" , 1998, pp.371 - 374」 「S.H.Le
e, S.L.Lee, H.Y.Kim, T.Y.Eom, " SID Digest" , 1999, pp.202 - 205」

IPS TN 가 가 IPS

() ()

()

(a - Si)

17 IPS
 . 17 , GL , DL , ASI (a - Si : a - Si ()
), PX , CT . SD1 , SD2 .
 , PX CT .
 SD1 PX TH .

Figure 6 illustrates the results of the sensitivity analysis for the effect of the CT on the SD1. The figure consists of two panels, (a) and (b), each showing a flowchart of the sensitivity analysis process. Panel (a) shows the results for the CT on the SD1, while panel (b) shows the results for the CT on the SD1. The flowcharts illustrate the process of identifying and excluding studies based on various criteria, such as the quality of the evidence, the risk of bias, and the consistency of the findings. The final results are presented in a table at the bottom of each panel.

(a)

(b)

17 18 , GL ASI SD
 1 GL (17 18 A). AS
 I , (Photo Conduction Current, Photo
 Conductivity Current)가 ,
 가 , , (chared carrier)
 , (Intrinsic Photoconduct
 ivity) .

SD1 ASI (17 18 B)
(17 18 C)가 가 .
ASI (PX) SD1
ASI (17 18 A B) SD1 가
)

가

3 3 3

;

, , ,
 .
 , TN IPS
 가 ,
 ,
 1 1
 (TFT) 1 (:) GL ,
 (:) DL , (:) CL
 , 2 DL 2 GL
 GL, CL 1 , DL
 CT가 1 , CL GL
 ,
 TFT PX ITO SD1
 SD1 , DL 가
 . ASI a - Si .
 PX CT LC
 ,
 GL PX TFT TFT , DL
 L CT TFT SD2 , C
 1 CL DL (協部)
 DL 가 ,
 .
 PX W L ,
 가 ,
 () ,
 .
 1 μ m 15 μ m , 50 msec , 4 μ m
 5 μ m 10 μ m L 1 μ m 10 μ m , 10V ,
 , TFT SD1 ASI E
 ASI GL D , ASI가 GL
 ASI
 , TFT SD1 ASI SD1 w1
 ASI w2 .

, TFT C SD1 ASI E
가 , 가 .

2 2 , 1
CL .

, GL DL TFT ,
ASI1, ASI2 DL 가
TFT .

3 (a) 3 , 3
(b) 3 (a) A - A . 2
CL SD2가 ASI2 .

GL DL TFT A
SI1, ASI2 2 가 , 2 , ASI2 SD2
1 ,

, DL TFT ASI2 SD2
GL SD2 TFT SD2
ASI2 SD2 3 (b) TFT SD2가
ASI2 2 ,

, SD2가 ASI2 TFT C
TFT .

, 2 , GL SD2 F가
가 , 3 (a) , F' 가가
.

4 (a) 4 , 4
(b) 4 (a) B - B . 3 (a) 3 (b) SD1 A
CL . ,

SI2 .

, SD1 SD2가 ASI2 3 GL SD1
, 3 , SD2가 ASI2

ASI2 가 .

SD1 4 (b) , GL GI ASI2
SD1 ,

, GL PX
SD1 , SD1 ASI2
(4 (a) (,
) 4 (a) (b) 3
) ,

4 (b) , SD1 ASI2 3 ,
SD1 .

5 5 ,
TFT ASI 2 GL DL ASI1
2 2 가 .

2 , SD2가 ASI1 ASI2 SD1 ASI
4 (a) 가 3 .

2 , 4 가 SD2, SD1 ASI1, ASI2 .

6 14 .

6 6 , GL , DL
PX , CL , CT , PX , TH TFT SD1
PX , V () , H 가 () .

2 , PX CT . ,
() , ,

6 V θ , $180^\circ - \theta$.

2 () ,

6 PX CT GI가 , PX CT
가 가 .

DL GL SD2 , PX PX
가 GL SD1 ASI가 , TFT .

7 6 I-I , TFT , GT
가 - ,

() TFT , GT, GI, i (, intrinsic, SDI, SD2)
(Si) i ASI, (

SD1 SD2 , SD1 SD2 ,

GT GL , GL GT가

, GT g1 . g1 , 2
 - (Cr - Mo) ,
 .
 GL g1 . GL g1 GT g1
 ,
 GL , GT g1 ,
 - (Cr - Mo) .
 , GL GT - , ,
 - 2 .
 CT CL g1 . CL g1 GT, GL C
 L g1 , CT .
 , CL - 2 , ,
 -
 GI , TFT GI , GT GT ASI
 . GI GL
 , 350nm GI , CVD GI GL CL , 100nm 4 μ m (DL
 ,) ,
 ,
 ASI d0 (P) , 150 2500 (, 1200) ASI가
 d1 , i
 ASI d0 , GL CL DL (CL) DL
 . ASI GL
 SDI, SD2 , N(+) d0 d1 . Cr - Mo
 , Cr - Mo
 N(+) d0 .
 SD2 DL SDI, SD2 . , DL
 SD2
 , d1 - (Cr - Mo) , 500 3000 (, 2500) . Cr - Mo , 가 ,
 .
 , Cr - Mo N(+) d0 d1 , Cr - Mo (Mo, Ti, Ta, W) , (MoSi₂, TiSi₂, TaSi₂, WSi₂) ,
 .

TFT, PSV가, PSV, TFT, PSV, CVD, PSV, DTM, GTM, 0.1μm, 1μm, PSV, GI, PSV, 2μm, 3μm, PX, ITO, ITO, CT, (IZO)가, CT, ITO, CL, CT가, DL가, TFE, (feedthrough), 8, 2, RDR, RDR가, EDR, 8, RDR, 75°, EDR, 45°, 90°, 20nm, 300nm, RDR, (100nm), 2, 10, POL1, MAX1, POL1, POL2, RDR, POL2, MAX2, 가, (PX, CT)가, 104Ω/□, EMI, 10⁸Ω/□, EMI, 9, SUB1, SUB2, 10(a), 10(b), PNL, 가, PNL, (AR), GTM, 가, ()

SUBI, SUB2 (9, 10) 9 LN
 , SUB2 가 Tg, Td CTM (9)
 Tg, Td , GTM, DTM
 CHI(16)가 TCP (16)
 TCP TCP PNL DTM, GTM
 CL , CTM , CT (9) , CB
 , CTM
 SL SUB1, SUB2 , INJ , LC SL
 POLI, POL2 SUB1, SUB2
 LC LC SUB1, SUB2
 SL LC SUB1, SUB2
 ORI1 , SUB1 PSVI
 , SUB1 , SUB2 가
 SL SUB2 , SUB1 SUB2
 SL INJ LC , INJ
 11 9 GL () GTM
 11 (a) , 11 (b) 11 (a) B - B
 , 11 9 SUB1 Tg
 11 (b) Cr - Mo g1
 GTM , Cr - Mo g1 , TCP (Tape Carrier Package)
 ITO1
 SV ITO1 ITO , 11 (b) GTM GI , GI P
 GTM GI PSV
 11 GL GTM
 GTM
 SHg() ORI1

12 DL DTM 12 (a) SUB1
 , 12 (b) 12 (a) B - B Td
 , 9 DTM 16 SUB1 PNL DTM Td
) (

DTM ITO1 , PSV1 DL
 () ITO1 GTM 가 ITO d1가
 DTM , DL

13 CL CTM 13 (a) ,
 13 (b) 13 (a) B - B CTM 13 (a) 9
 CTM

g1 CL CB CTM CB
 g3() ITO1
 , CB , 가 , CL
 CTM , g1 ITO1 ITO1
 가 ITO
 g1 ITO1 , , ITO1
 , ITO1 g1 d1 , PSV GI

14 () 가 14 ,
 , 14 , X
 L DL , G, B R , Y G
 , 1, 2, 3, ...
 Y() () V , X()
 () H . SUP CRT() TFT
 ()

15 14 VG 1 ,
 , 1
 VD , 가
 가

가 VD 1 , 2 () , () ,

VC VD , ,

TFT가 ,

VLC 가 (가 가 ,).

16 9 PNL () H ()

V

CHI PNL IC (16 5 IC , 10 IC) .

TCP IC CHI가 (TAB) , PCBI T CP , 2

FGP , SHD , FC PCBI

FC 16 , (- Sn)

가

가

가

(57)

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2.

1 ,
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3.

1 ,
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4.

3 ,
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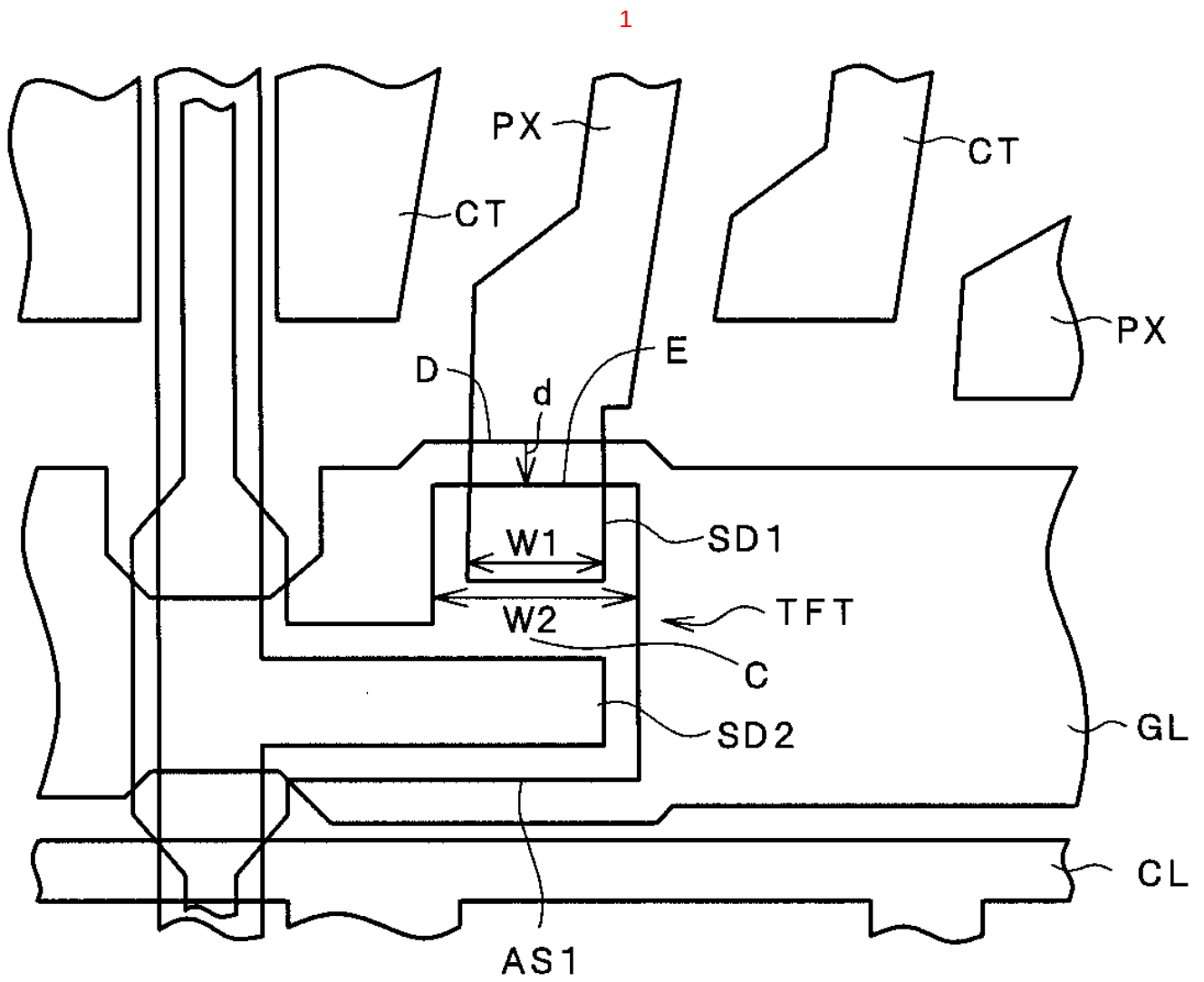
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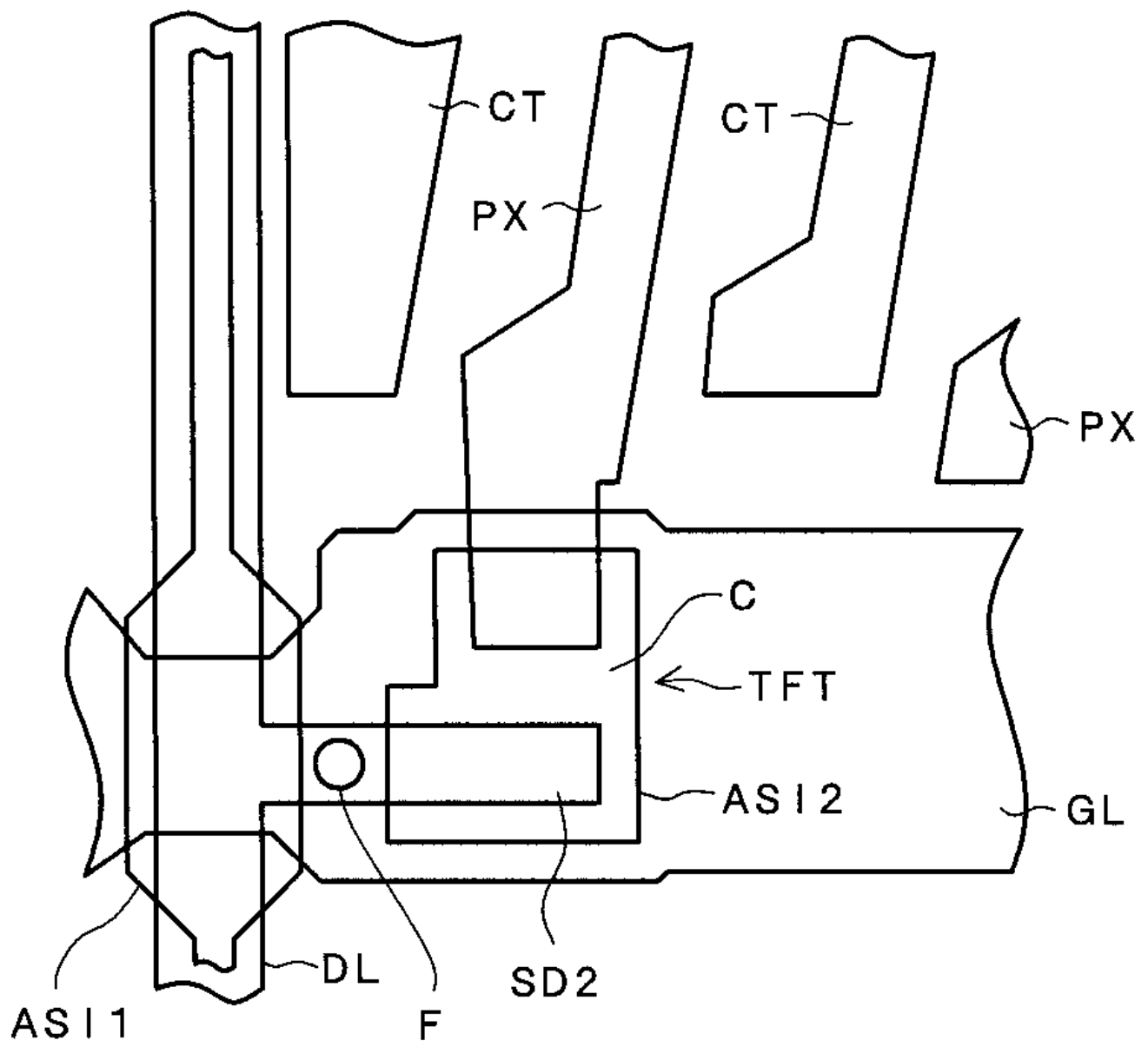
6

8.

6

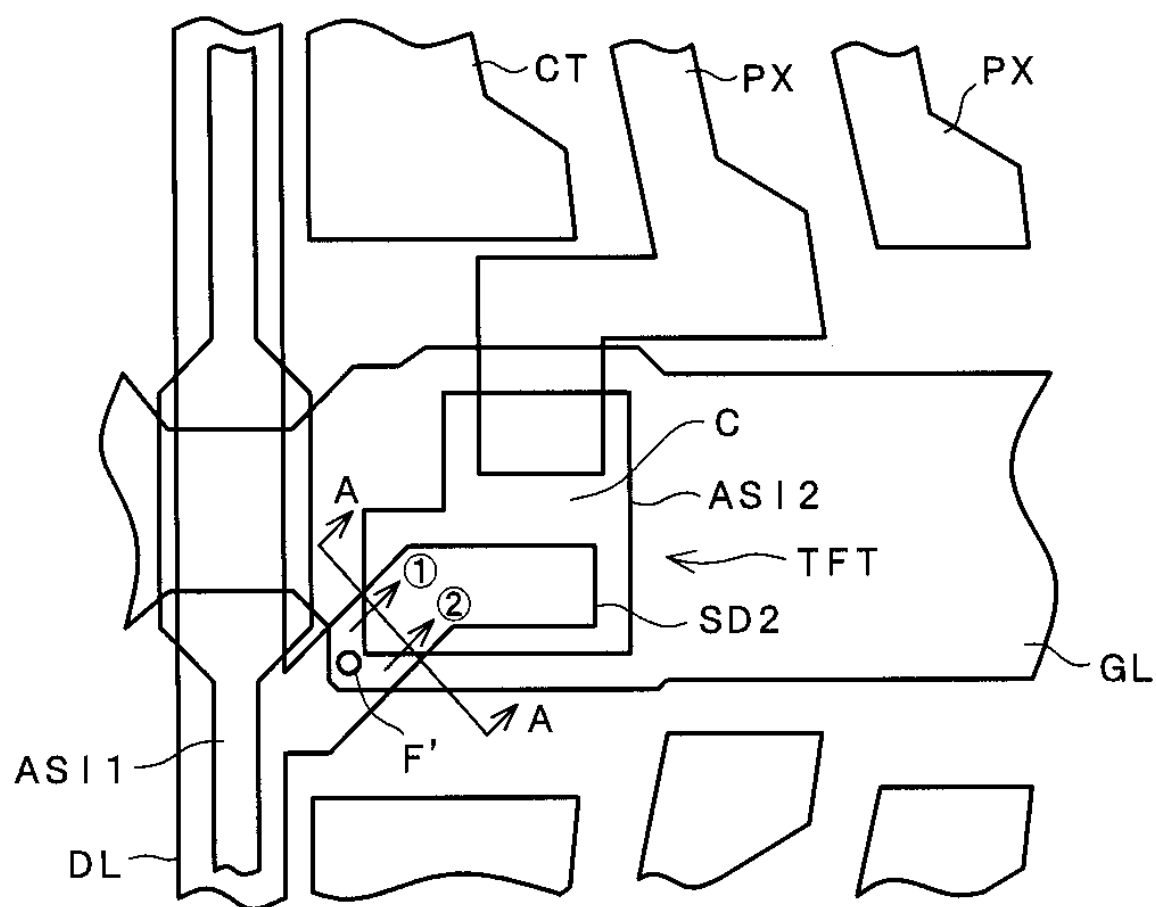


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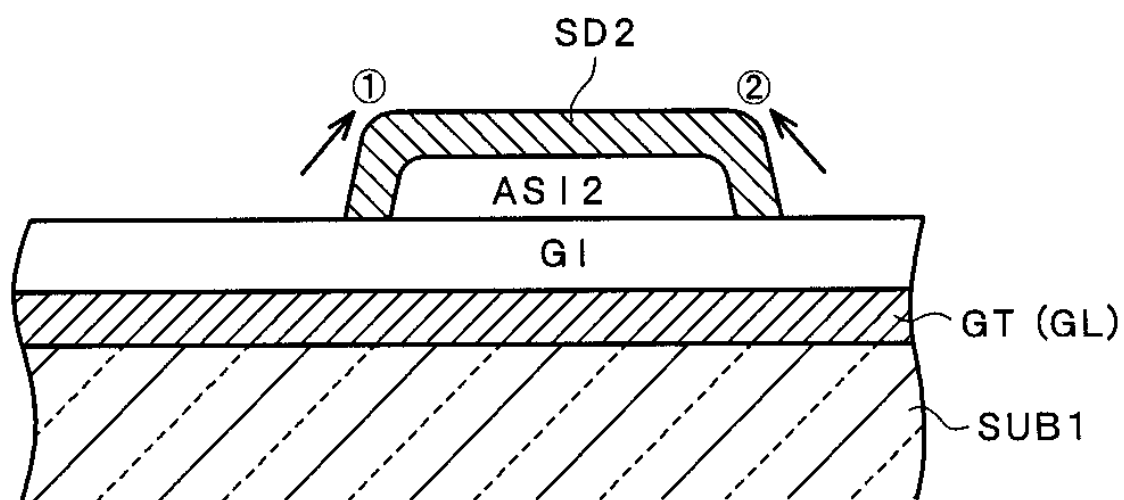


3

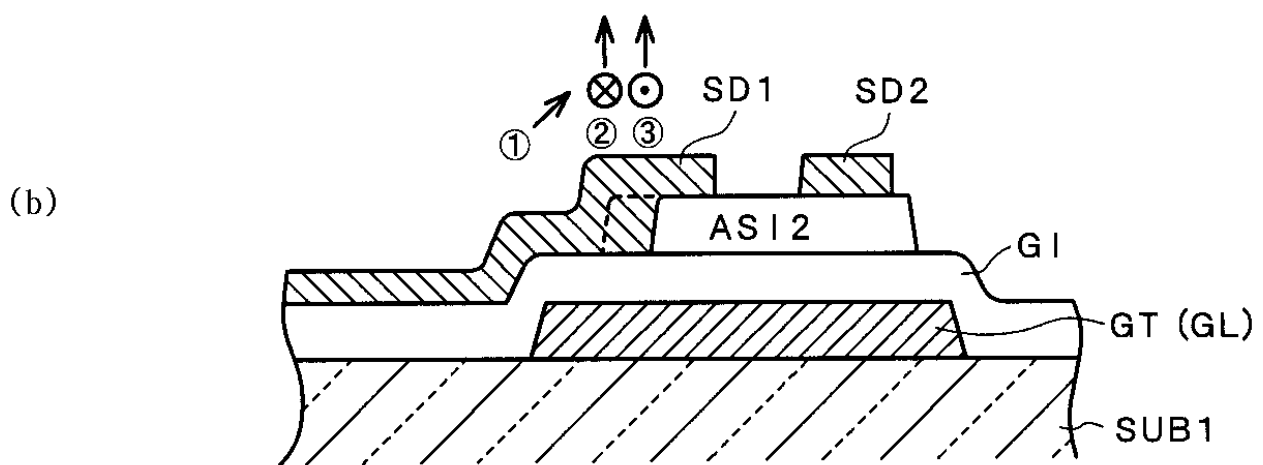
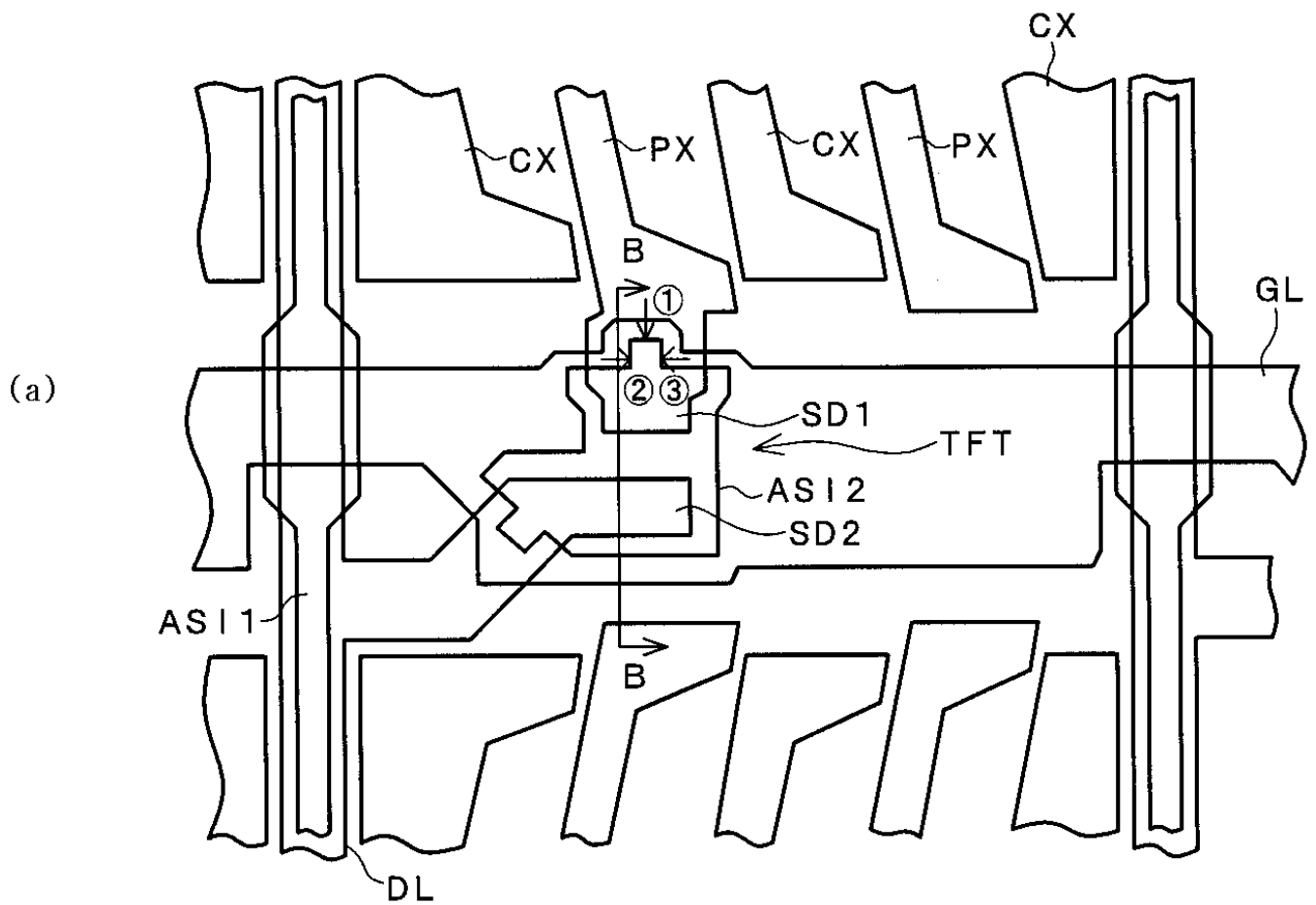
(a)



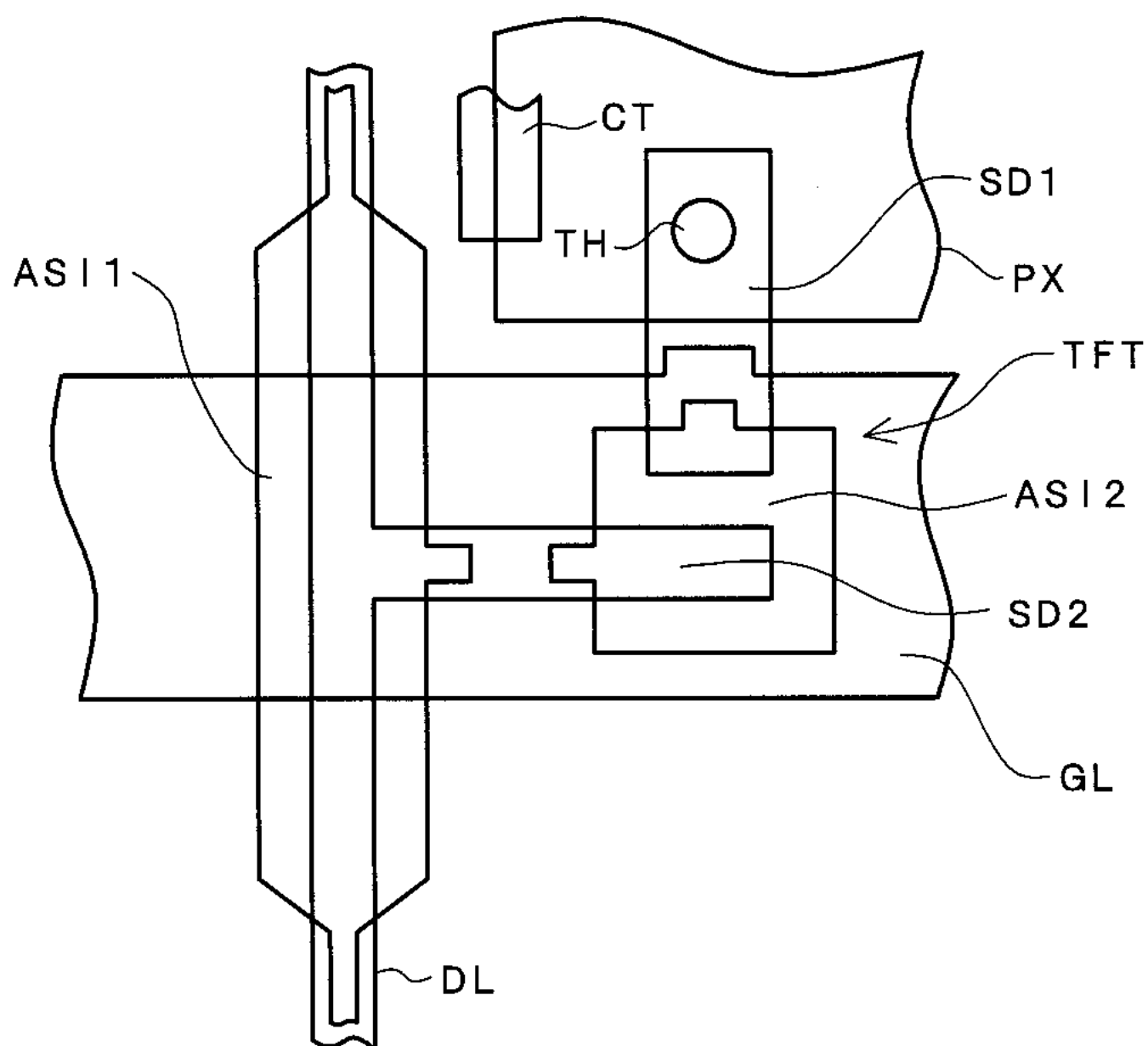
(b)

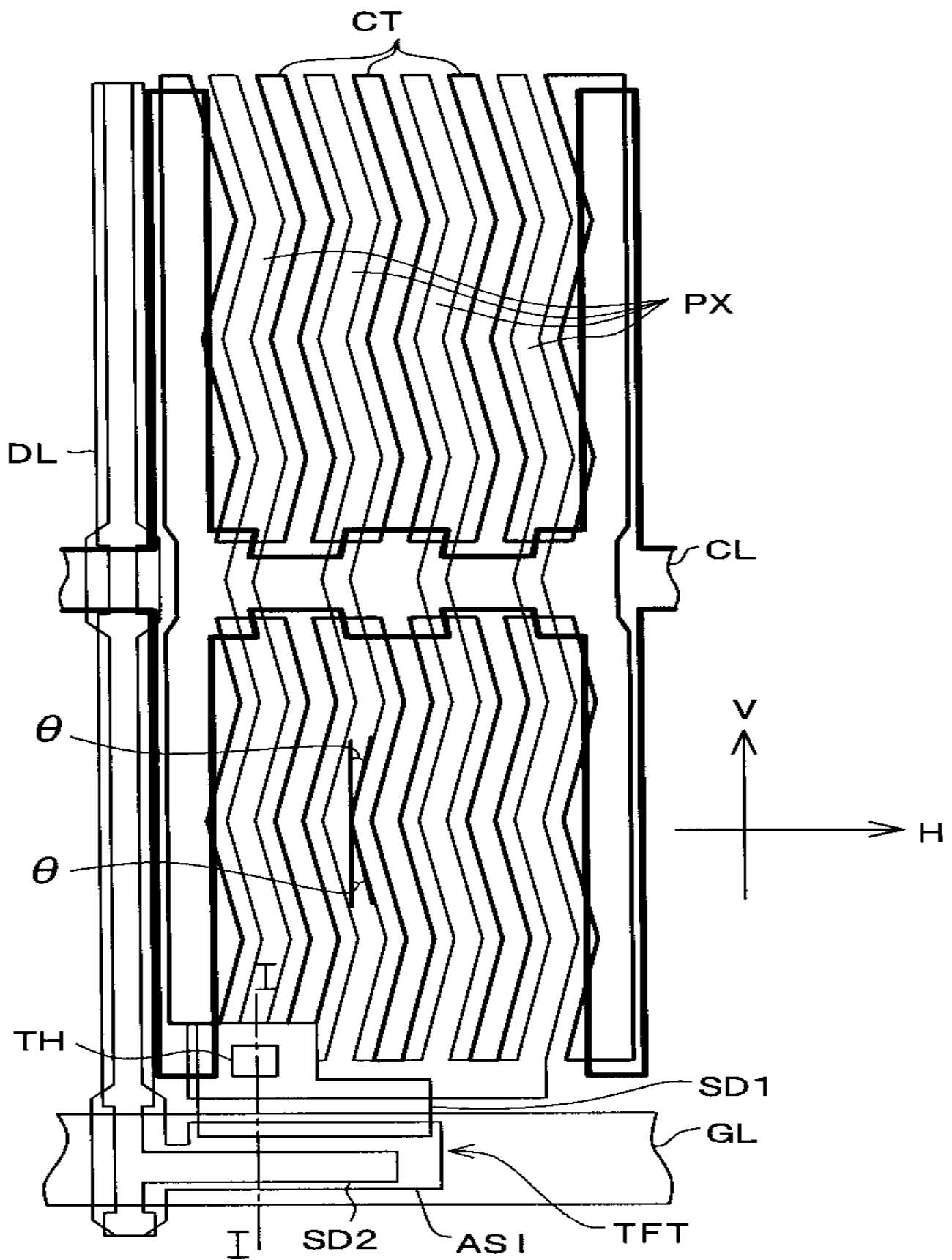


4

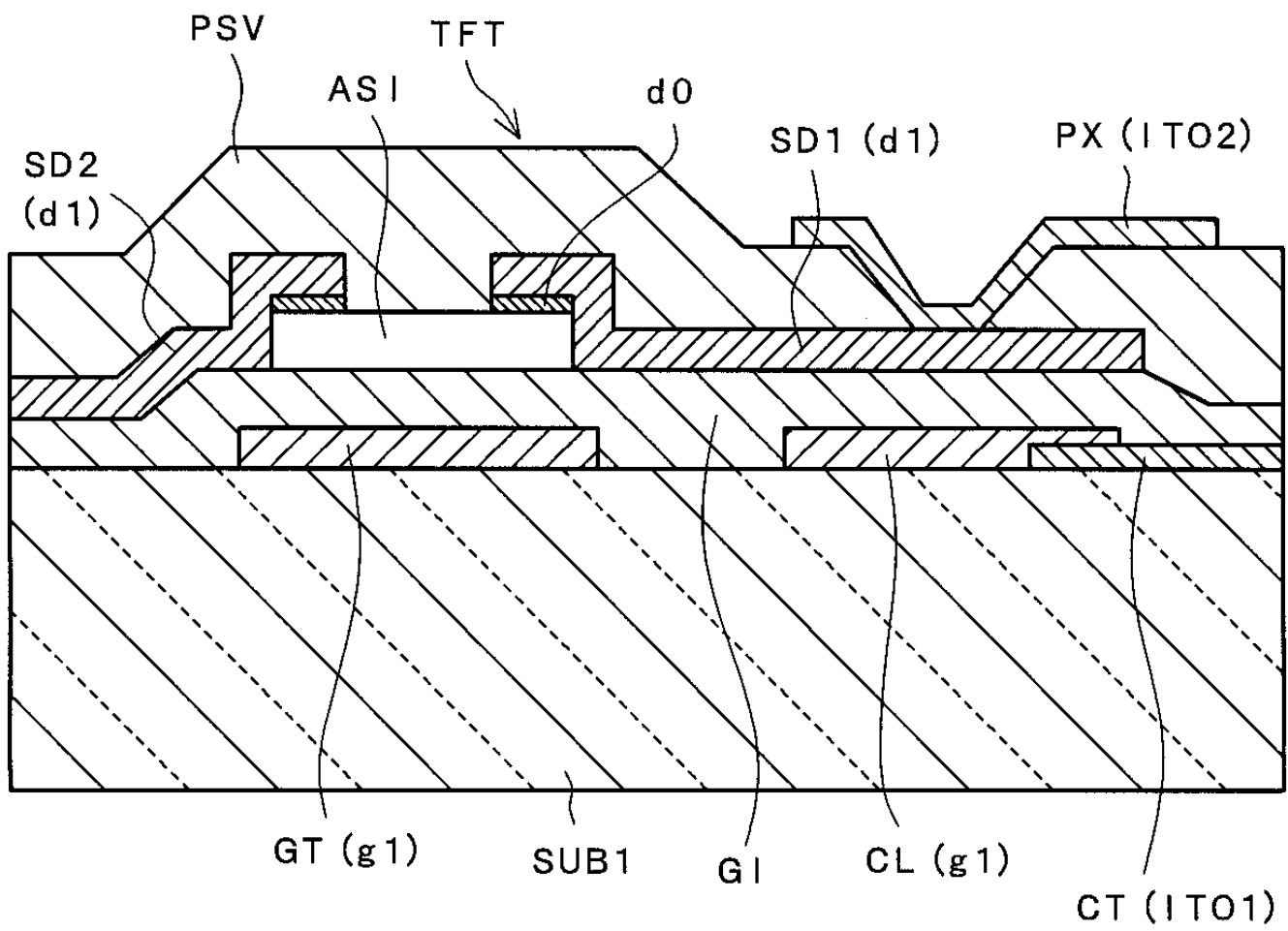


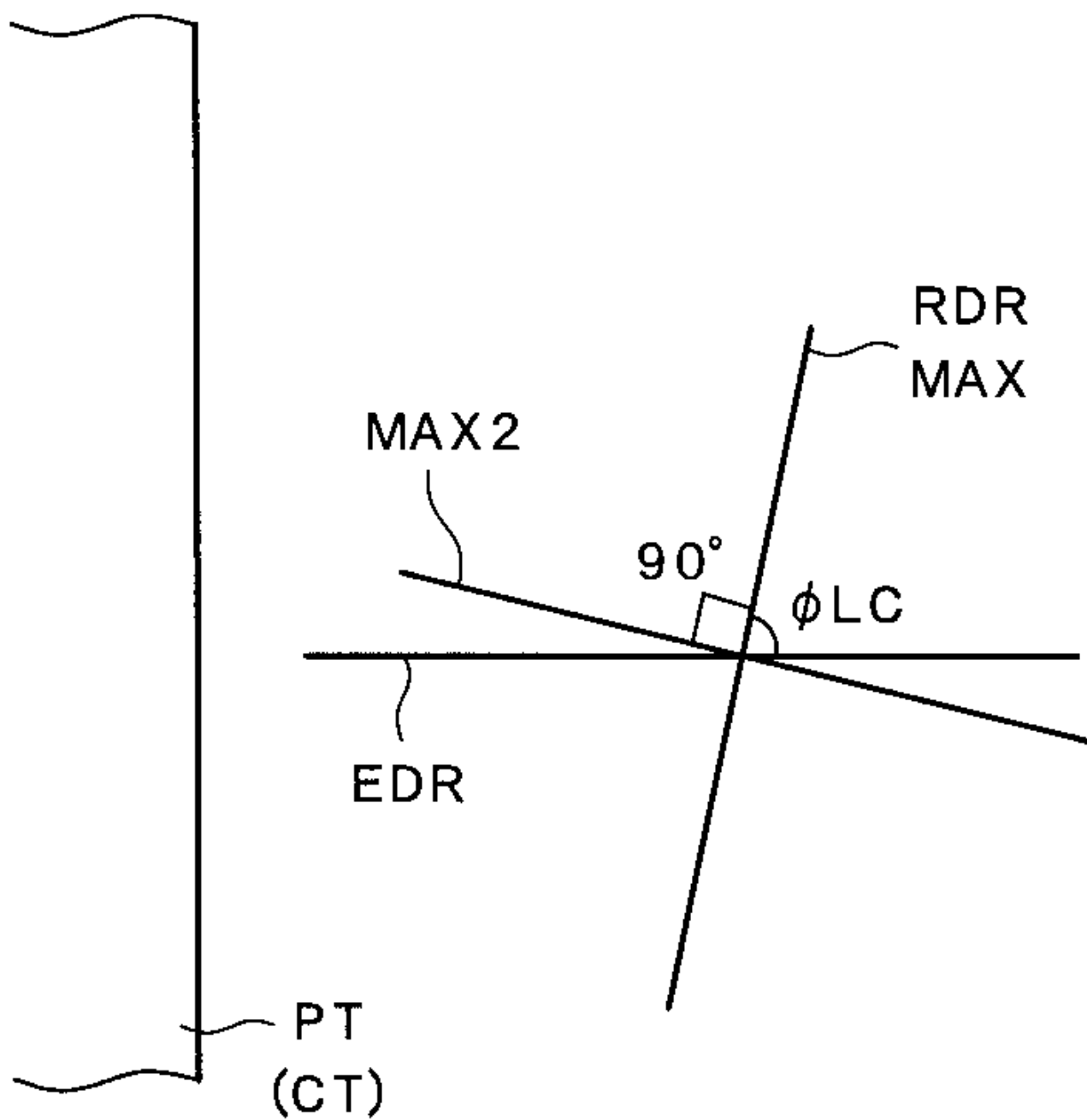
5

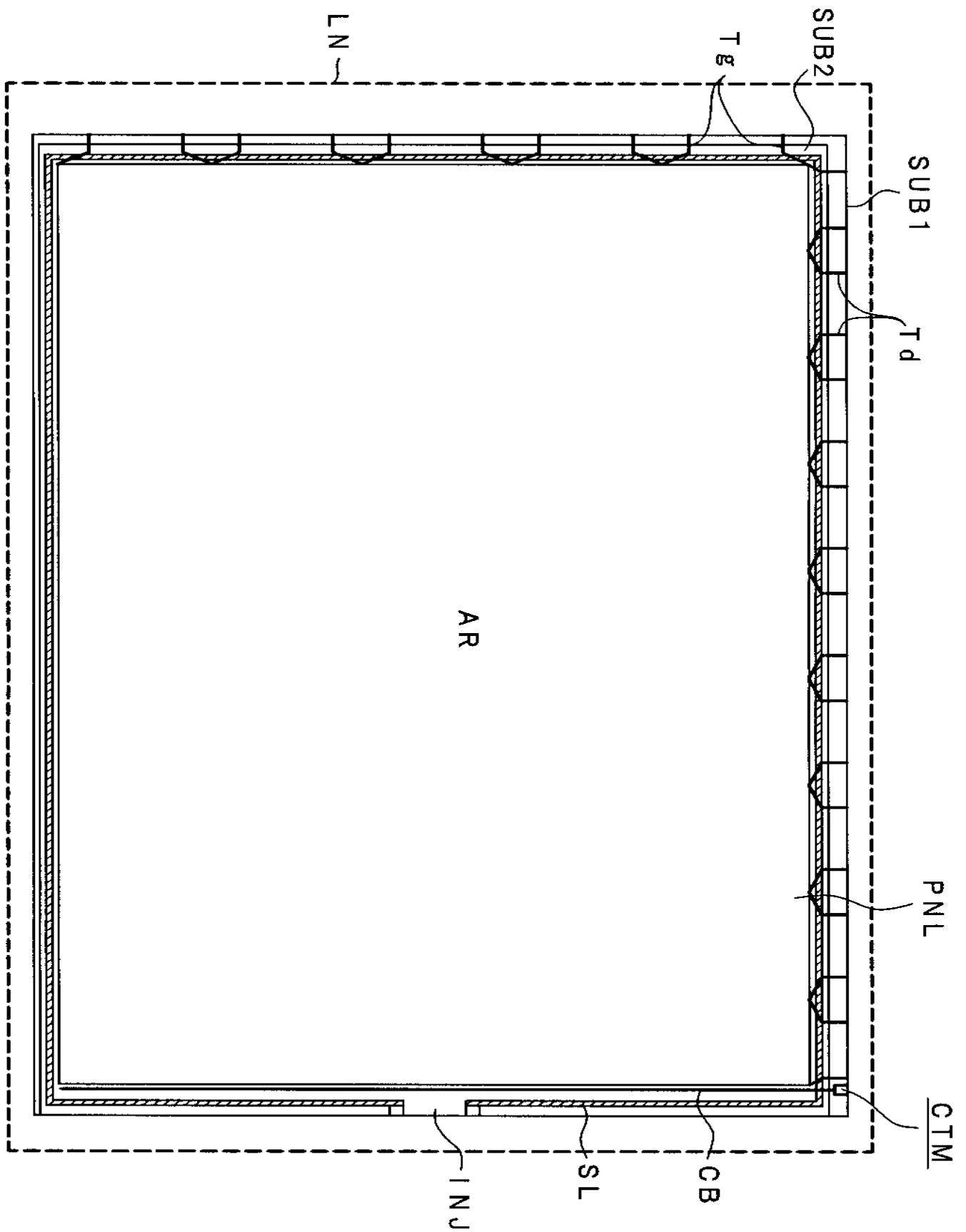




7

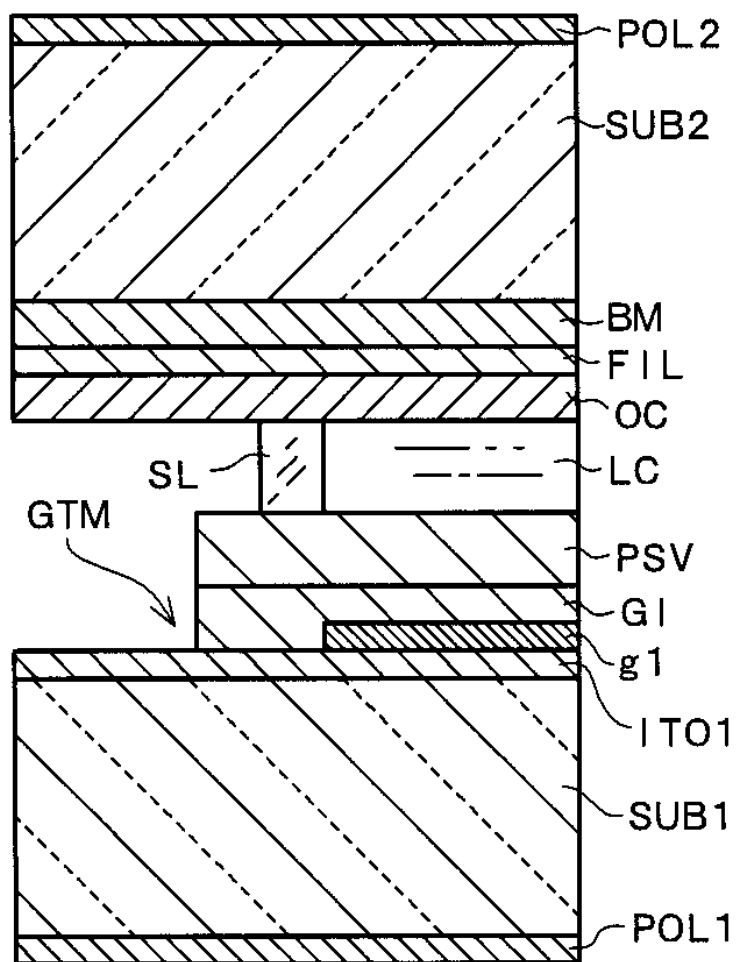




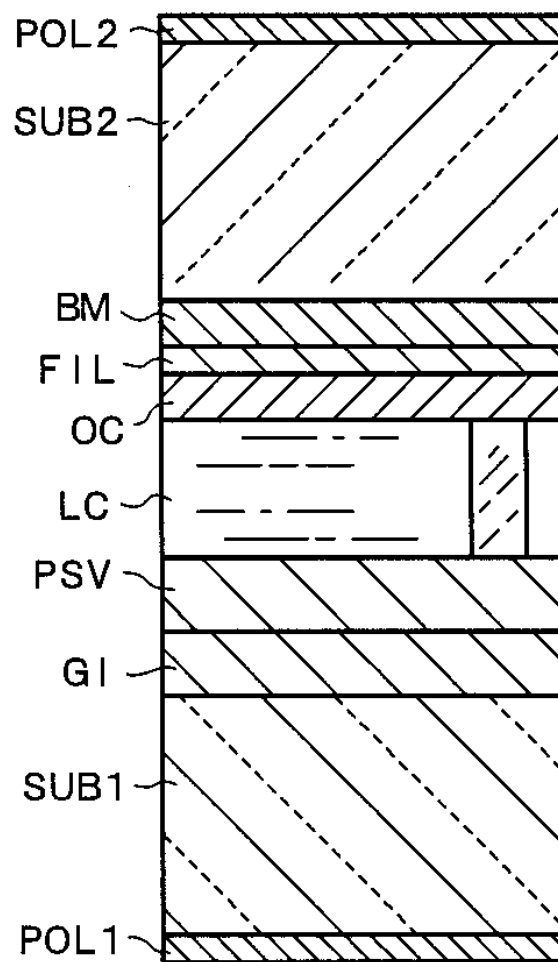


10

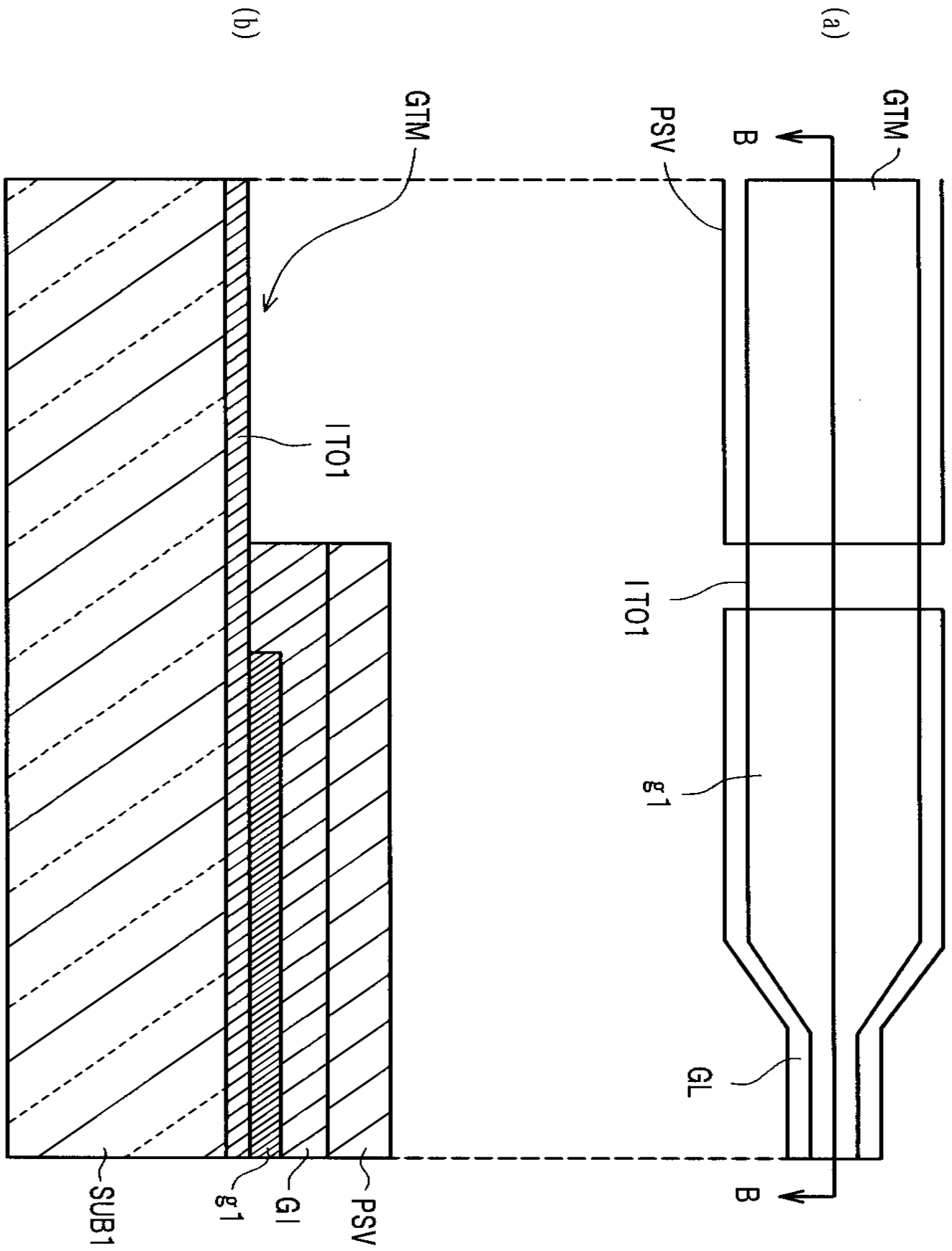
(a)

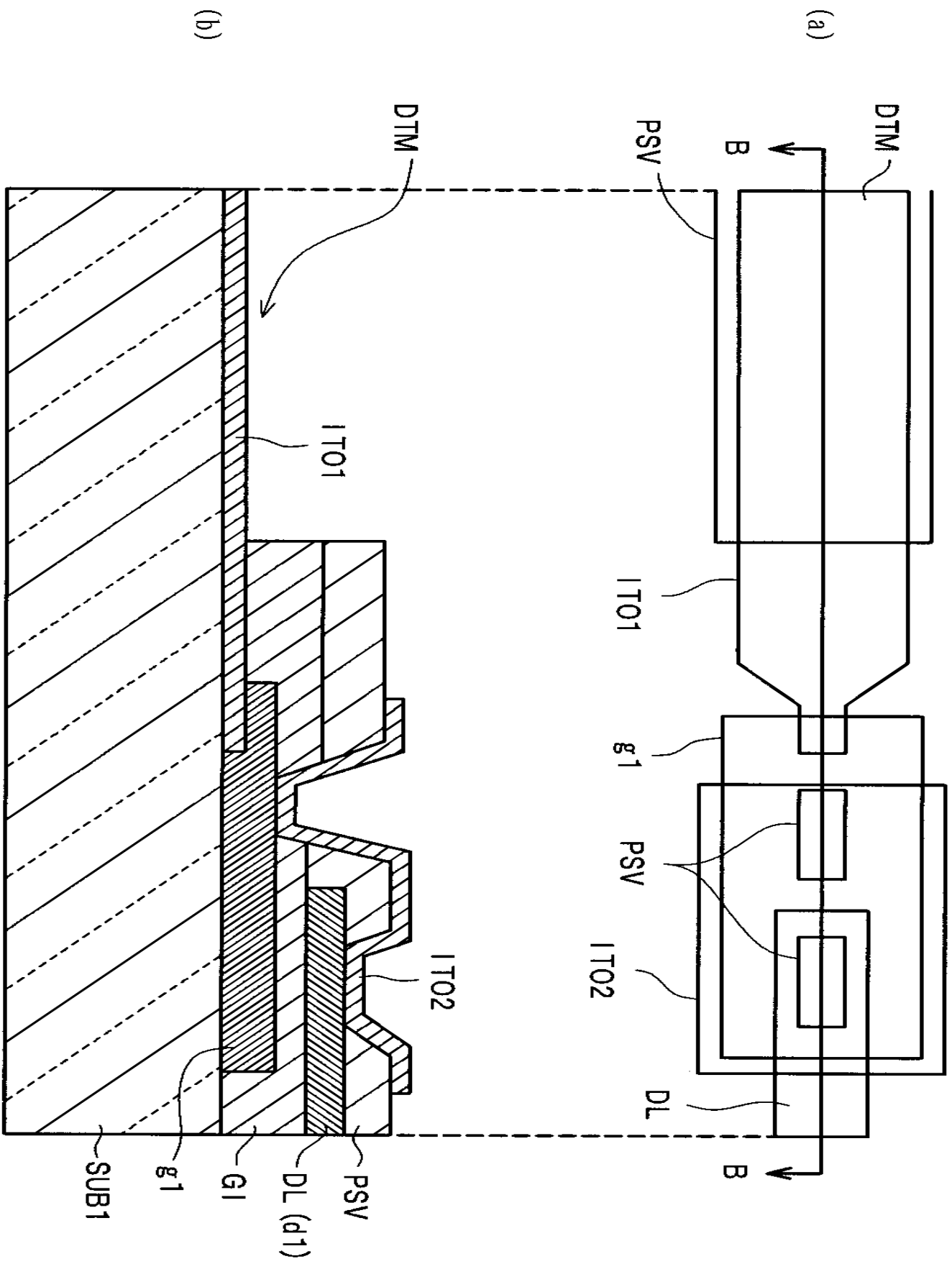


(b)

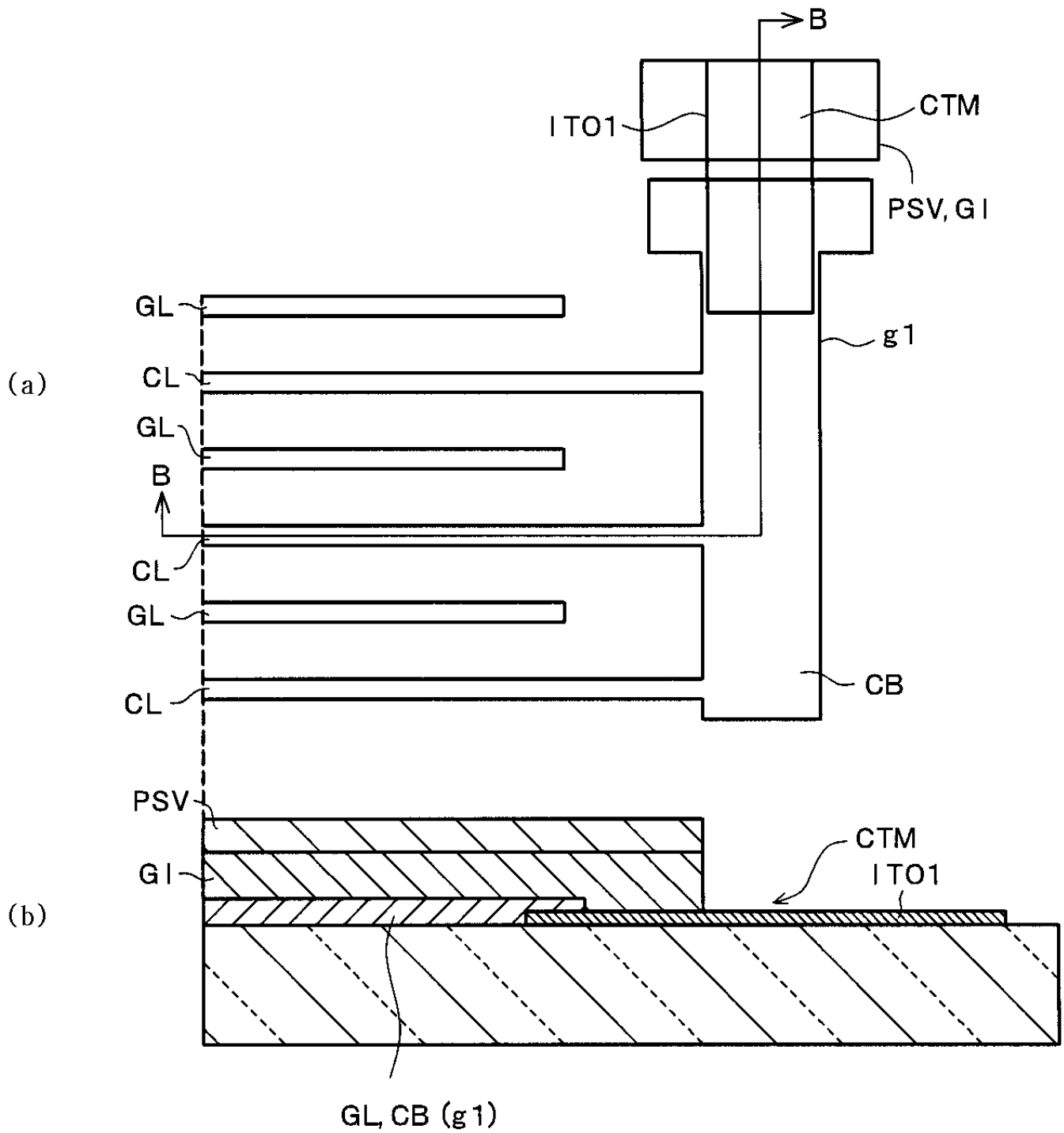


11

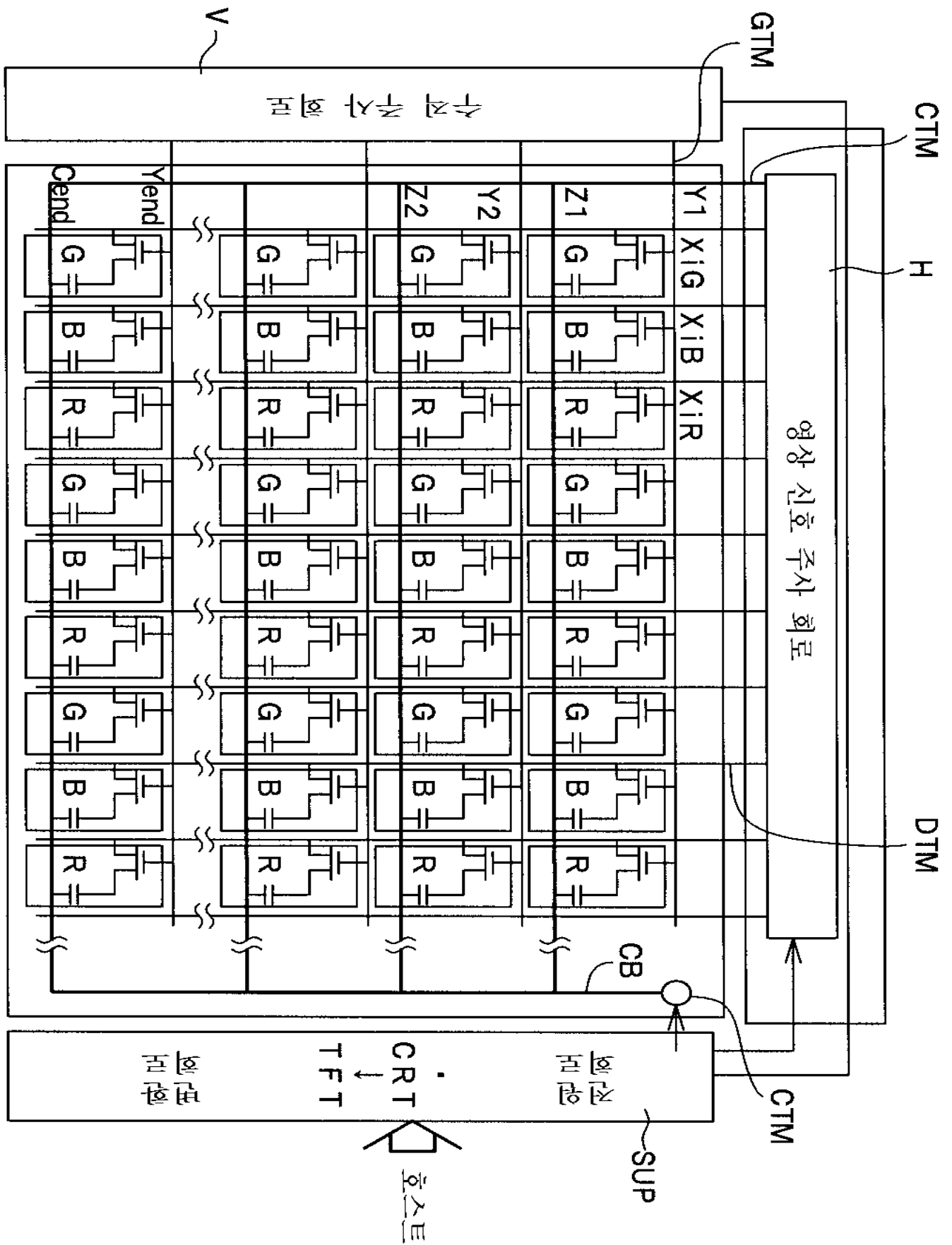




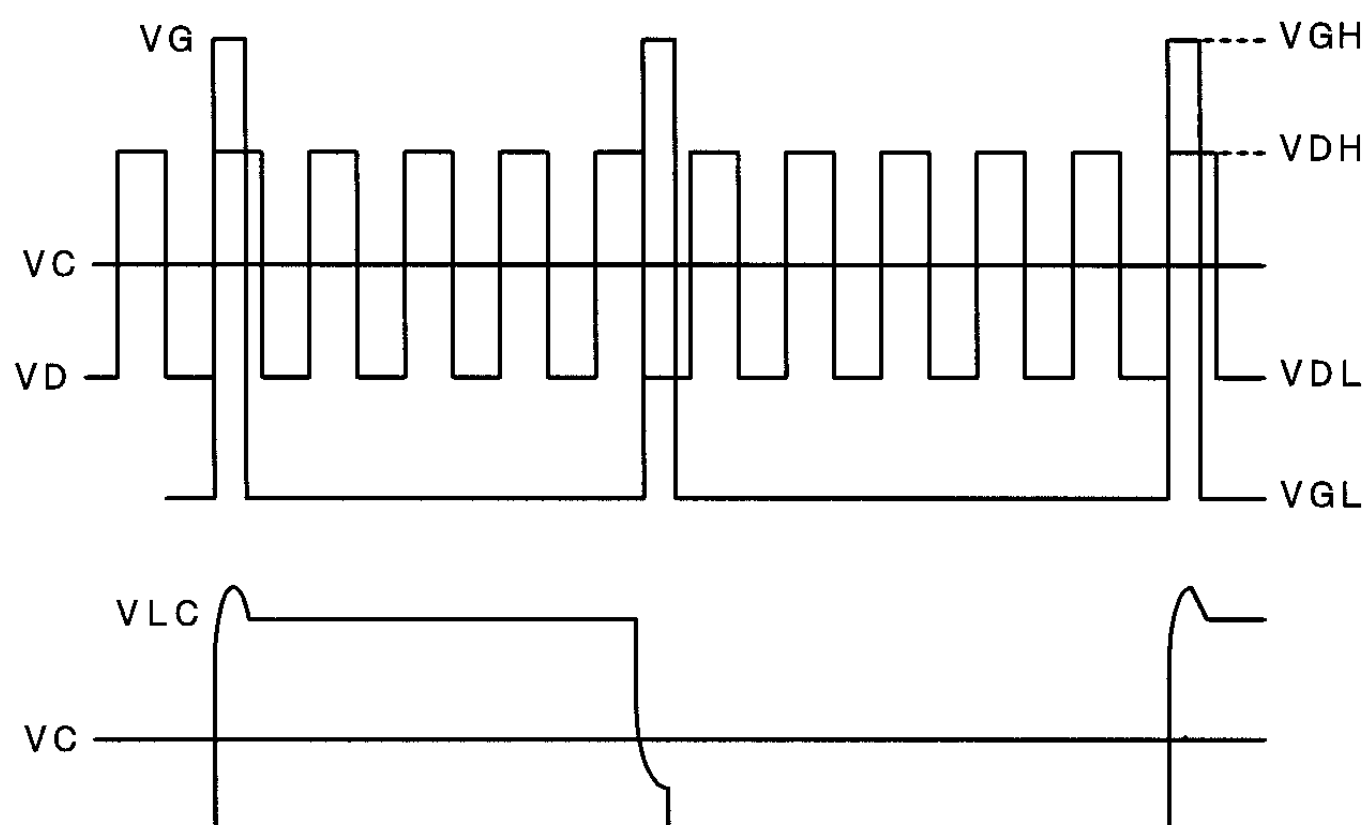
13



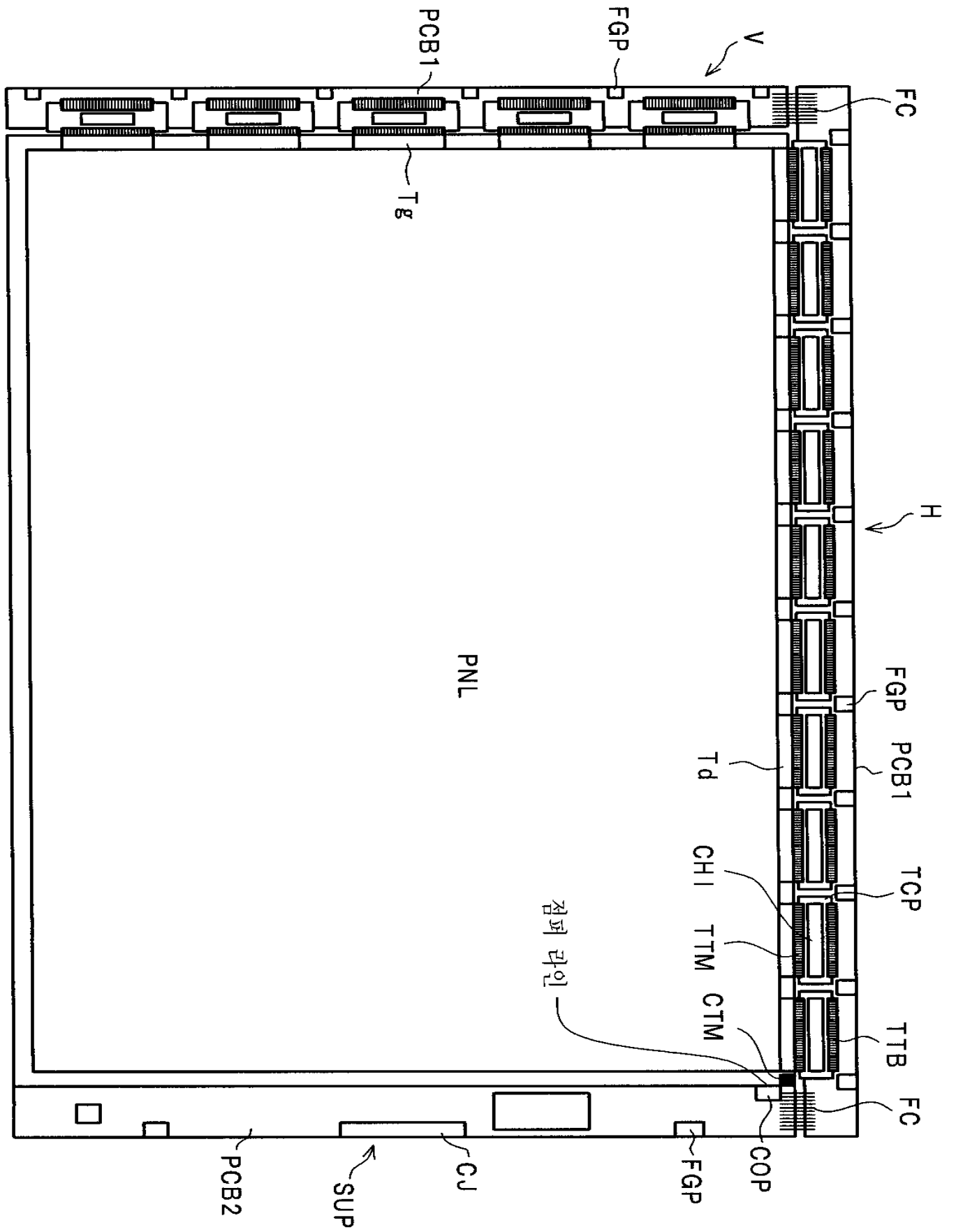
14



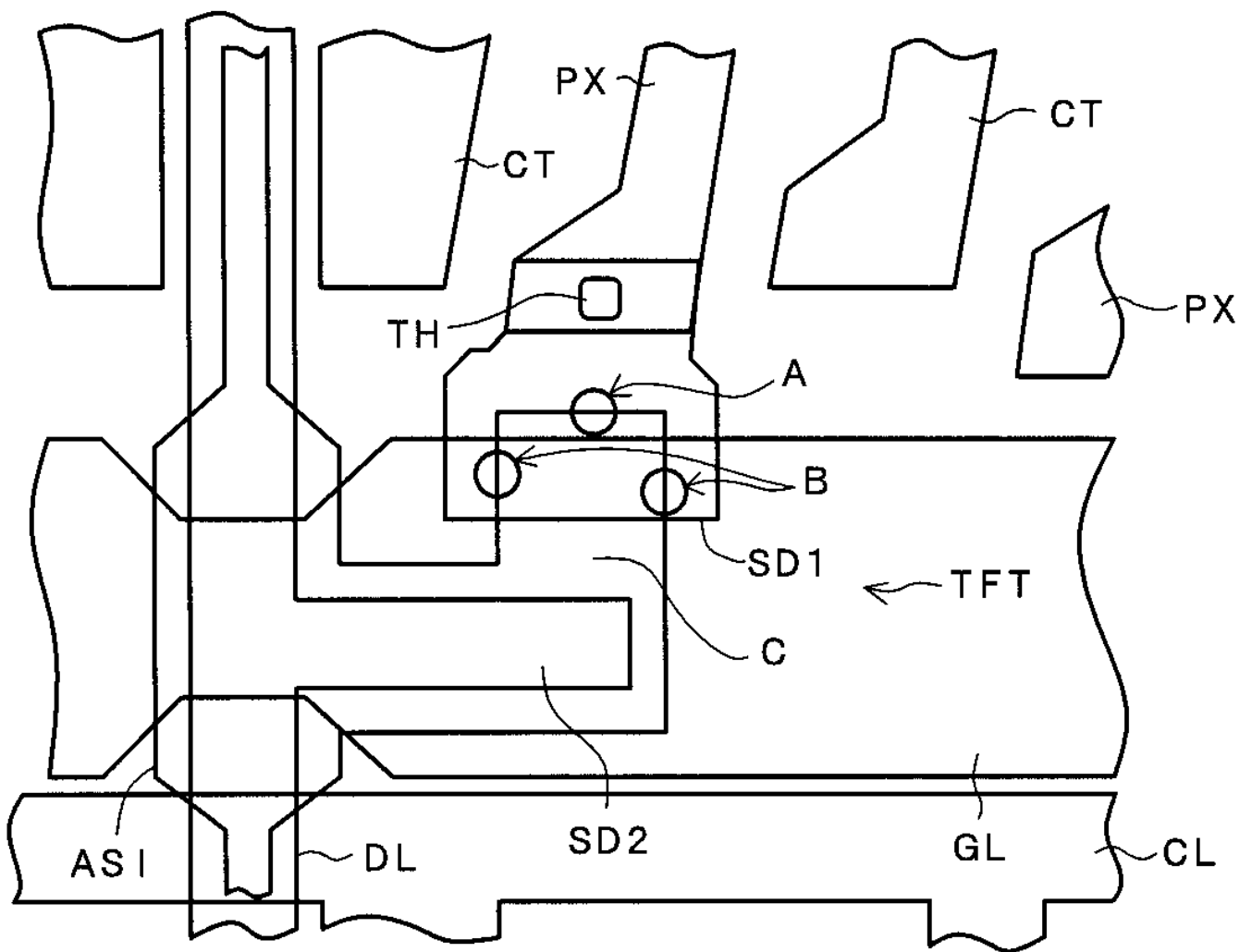
15



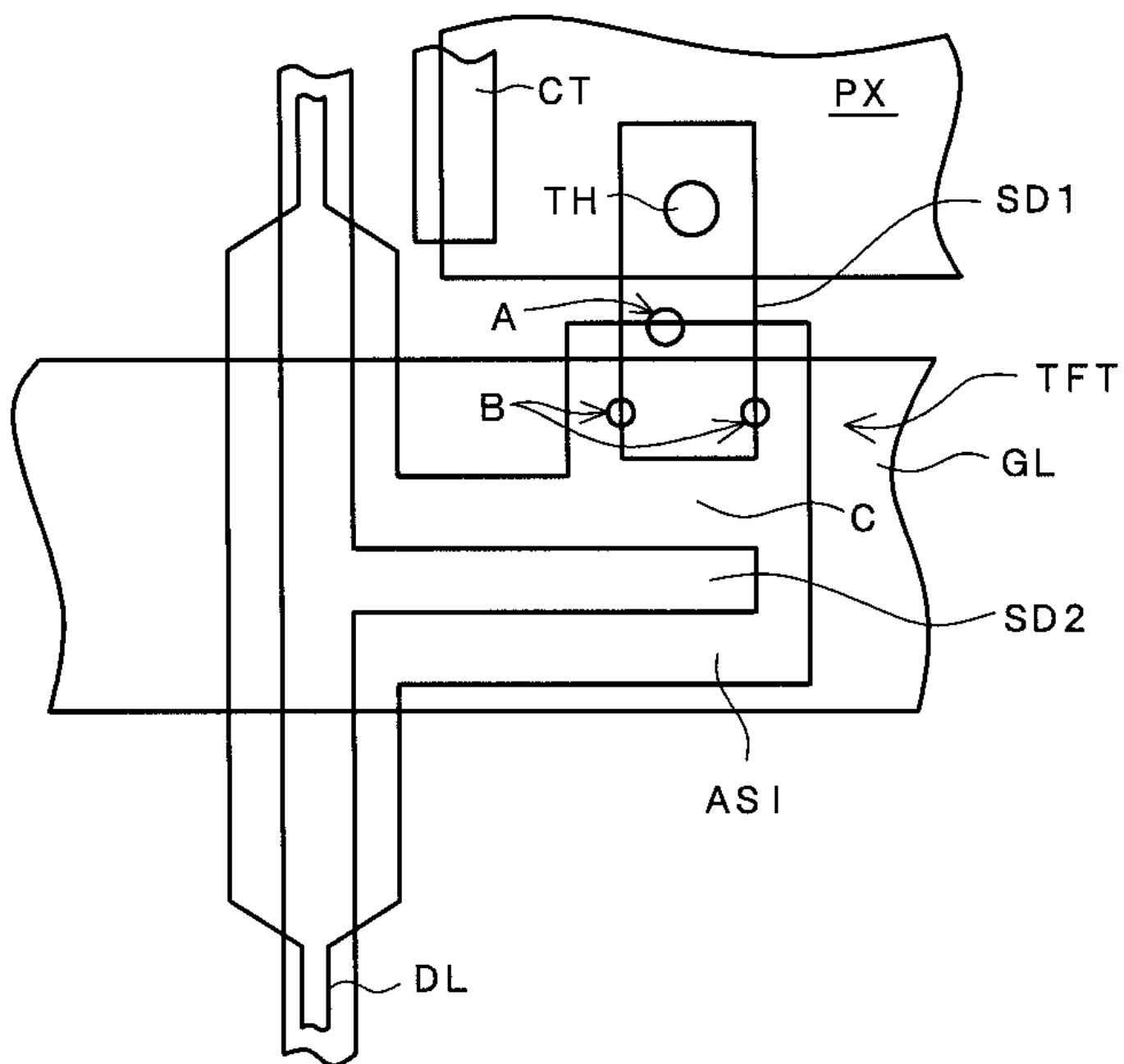
16



17



18



专利名称(译)	液晶显示器		
公开(公告)号	KR1020010110181A	公开(公告)日	2001-12-12
申请号	KR1020010030946	申请日	2001-06-02
[标]申请(专利权)人(译)	日立HITACHI SEISAKUSHODBA		
申请(专利权)人(译)	株式会社日立制作所		
当前申请(专利权)人(译)	株式会社日立制作所		
[标]发明人	ASHIZAWAKE ICHIRO 아시자와께이찌로 KURIYAMA HIDEKI 구리야마히데끼 TANAKA TAKESHI 다나까다께시 HASHIMOTO YUICHI 하시모또유이찌 NAKATANI MITSUO 나까따니미쯔오		
发明人	아시자와께이찌로 구리야마히데끼 다나까다께시 하시모또유이찌 나까따니미쯔오		
IPC分类号	G02F1/136 G02F1/1343 G02F1/1368 G09F9/30 H01L21/336 H01L29/786		
CPC分类号	G02F1/134363 G02F1/1368		
代理人(译)	CHANG, SOO KIL		
优先权	2000165449 2000-06-02 JP		
其他公开文献	KR100461484B1		
外部链接	Espacenet		

摘要(译)

在其像素区域中具有薄膜晶体管的液晶显示装置中，本发明在栅极线（或薄的栅极）的轮廓内将位于薄膜晶体管中的源电极下方的半导体层布置在膜晶体管）以抑制半导体层中的光导电流，或防止源电极在源电极越过半导体层的位置处破裂。

