

1

1

2

3a 3e

1

4a 4e

2

5a 5f

3

< >

100:

10: 12:

13: 14: (bonding pad)

16: (ball land) 18: (solder resist)

20, 30: 22, 32:

24, 34: (electrode pad) 41, 43: (bonding wire)

50: 60: (solder ball)

110: 112, 162:

115: 120: (active surface)

122: (passivation) 130: (backside trench)

132: 140:

150a, 150b, 150c: (die)

(20) (30) 2 (32) . 1 (22) 2
 (32) , (Ag epoxy)
 (30) - 가 (34)가 (30)
 (34) , (20) - , (32)
 (20, 30) (24, 34)가 IC
 (30) (35, trench)가 (30)

1 (41) (20) (24) (14) , 2
 (43) (30) (34) (14)
 (41, 43) (24, 34) 가 (14)
 (100) (30) (35)
 (20) 1 (41) 가

(10) (13) (16) (18) , (16)
 (60) 가 (16)
 (14) , (20, 30) (24, 34),
 (41, 43), (14), (16) (60)
 (mother board)

2
 , 1 (71). 1 (72),
 , (scribe line) 1 (73).
 () (74).

2 (75). 2 1 가 ,
 (wafer batch fabrication process) 1 -
 가 . 2 (76), 2 ()
 77) (78) . 3 5 .

1 (79) ,
 (80). 1
 (81) .

2 (82) ,
 (83). 2 (84)
 (85) .

2 가 .

3a 3e 가 1

3a (110) (115) , (112) IC 가 (110) ,

(110) 3b (115) (130)

(130) (112) (110) (scribe line)

(115) (120) (122) (130)

(130) 1 ,

3c , (130) (110) (115) (132) (132)

(115) 가 IC

(132) (130)

(evaporation), (sputtering),

(130)가 (132) (110) (115) (140) (3d),

(110) (150a, 150b, 150c)

(wafer sawing) (117)

(140)

4a 4e 가 2

4a , (110) (115) 1 (160) (162)

4b , (115) (164) (164)

(164) , 4c , 1 (160)

(166)

1 (160) (4d), (166) (115) 2 (1

68) . 2 (168) 1 (132) 가 가

5a 5f 가 3

5a , (170) (110) (115) (170)

(photo - resist) 5b (172)

, (172) (170) (172)

, 5c , (170a) 5d , (170a)

(174)

(170a) (5f). 가 (5e), (176) 1 (174) 2 (115) (132, 168) (176) 가
 가 , (30)

IC

IC

IC 가

(57)

1.

가 ,
 1 , 가 ,
 2 , 가 ,
 1 ,
 2 ,
 1

2.

1 ,

3.

1 , , 1 , 2

4.

1 ,

5.

1 ,

6.

1 ,

(polyimide tape),

(PCB; Printed Circuit Board)

7.

가

1

가

2

2

1

1

1

1

2

2

2

8.

7 ,

9.

7 ,

1

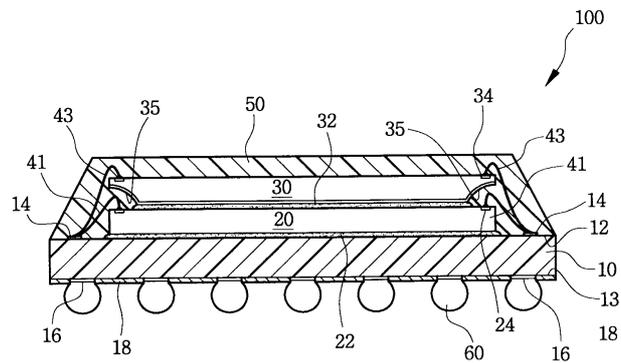
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2

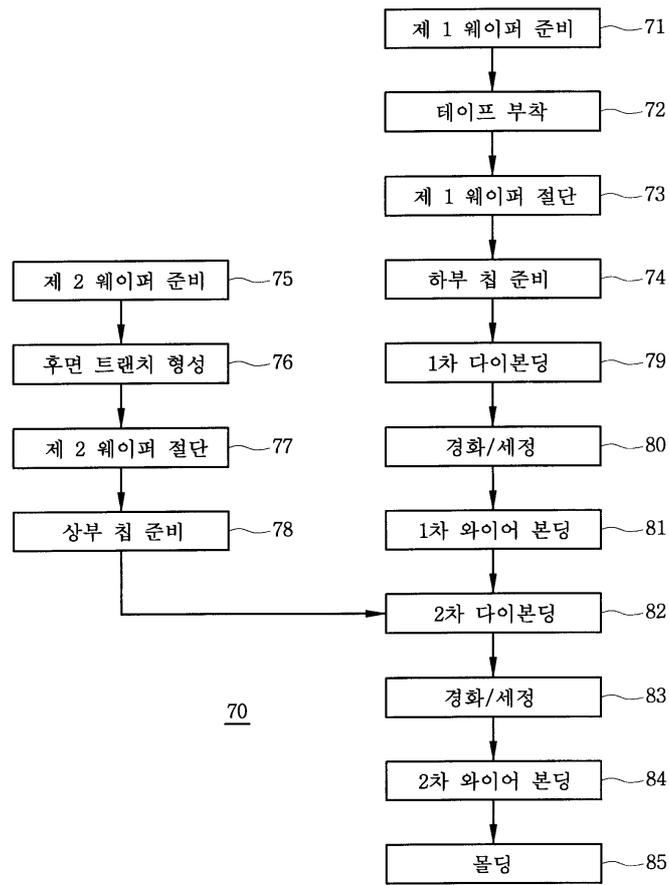
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7

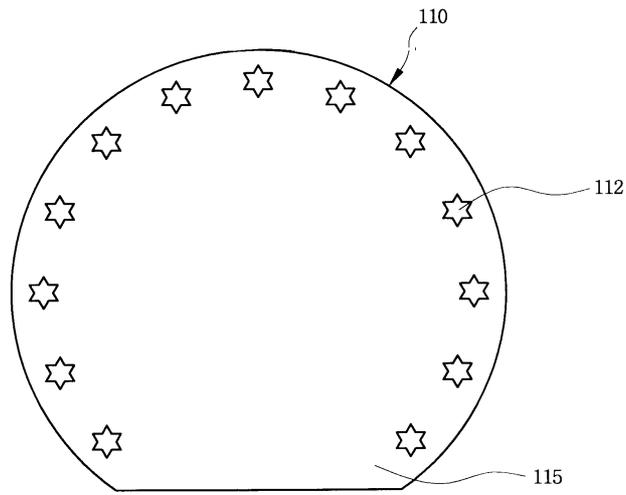
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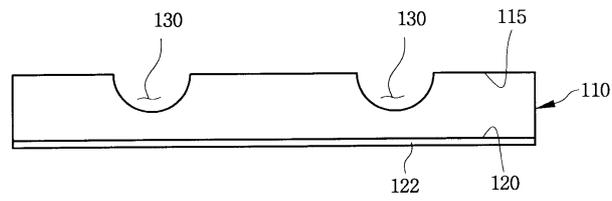
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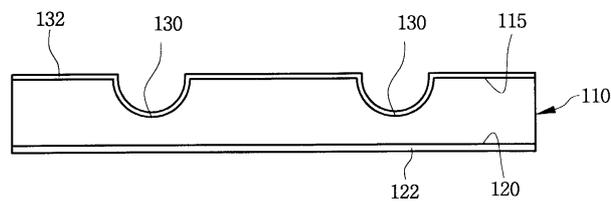
3a



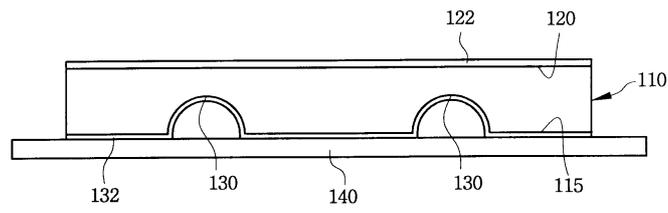
3b



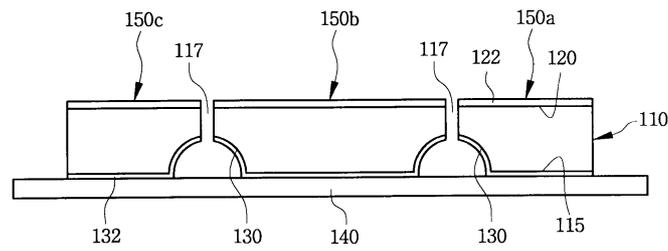
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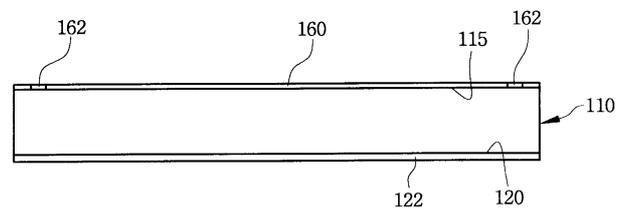
3d



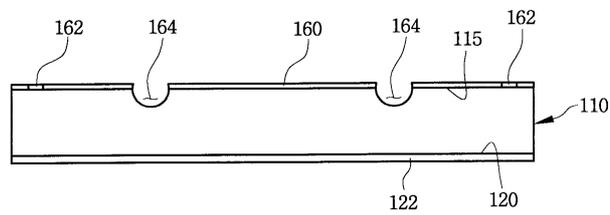
3e



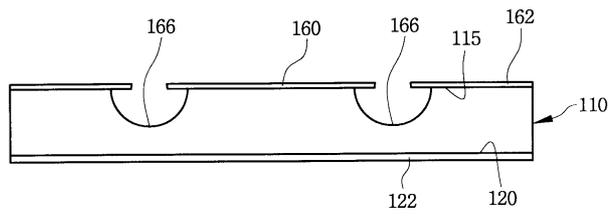
4a



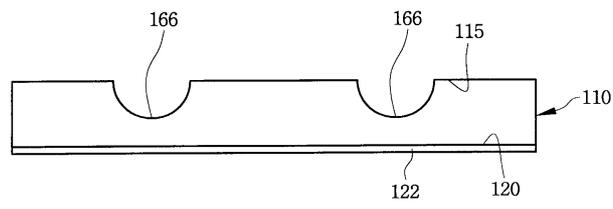
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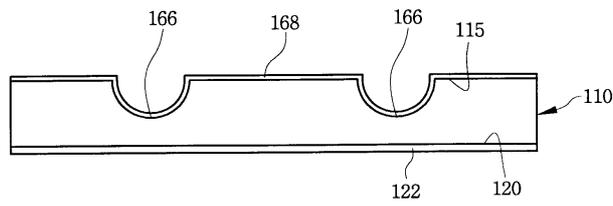
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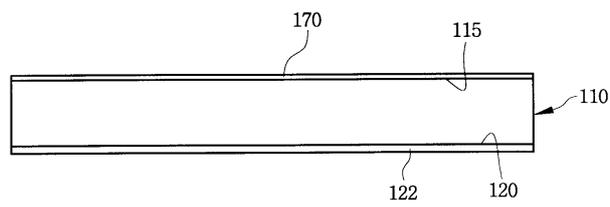
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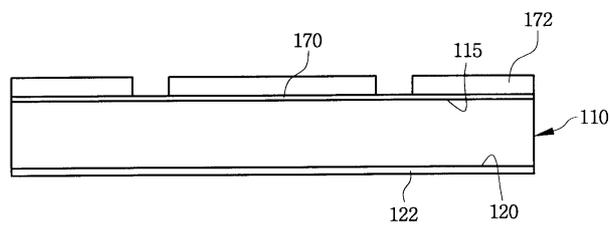
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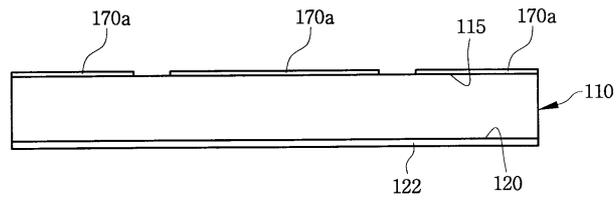
5a



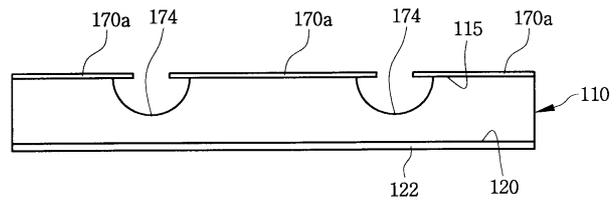
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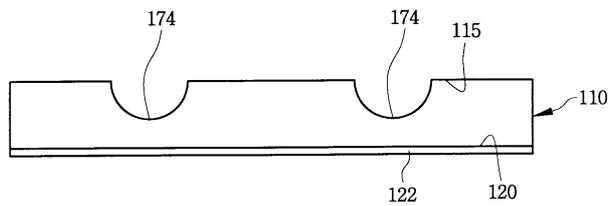
5c



5d



5e



5f

