

(19)
(12)

(KR)
(A)

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(43)

10-2004-0014178
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(21) 10-2003-0032807
(22) 2003 05 23

(30) JP - P - 2002 - 00166549 2002 06 07 (JP)

(72) 5 22 1 가 가

1 5 1 가 가

(74)

(54)

(多)

가 1, 1 2, 2 가 2
1 2 .

1 1 () ,
2 1 () (),
3 1 () ,
4 3 ,
5 1 ((a) 3 A-A , (b)
3 B-B),
6 5(a) ,
7 1 ,
8 7 ,
9 1 ((a) 1 , (b) 2),
10 1 ((a) , (b)
),
11 1 , 1 ,
12 11 ,
13 1 , 2 ,
14 13 ,
15 2 ((a) 1 , (b) 2),
16 2 , 1 ,
17 2 , 2 ,
18 3 ((a) 1 , (b) 2),
19 4 ((a), (b), (c)),
20 4 ((a), (b), (c)),
21 5 ((a), (b)),

22 5 ((a), (b)),
23 5 ((a), (b)),
24 6 ((a), (b)),
25 6 ((a), (b), (c)),
26 6 ,
27 7 ,
28 8 ,
29 9 ,
30 10 ,
31 11 ,
32 12 ,
33 12 , 1 ,
34 12 , 2 ,
35 12 , 2 .
()

1a, 1b, 1c, 1d, 1f, 1g, 1h, 1j, 1k, 1m, 1n

2

2x ()

2y

3 ()

4

4a 1

4b 2

5 ()

5a 1

5b 2

6

7

8

8a, 8b

8x

8y ()

9 ()

LF1

10

11

12

20

21

21a 1

22

22a 2

23

24

, () 가

가 11-330343, QFN(Guad Flatpack Non-Leaded Package)
가 ()
가 (折曲)(),
QFP(Quad Flatpack Package)

QFN

(cavity) ()
(上型) (下型)

가

가

가

가

가

(薄膜狀)

(resin burr)

QFN

가

()
가
11-27419

5

QFN LSI 가((多)

가

가

가

(zigzag)

가

가

(1)

가

가

1

1

2

2

가

2

1

1 2

(2)

1 1 2 , 1 1 2 , 가
1 , 1 (mating surface) 1 1 2 , 가 1
(型) ,

2 1 (型) 가 2 (成形型) 1 , 2 가

1 2 ,

1 2

$$, \begin{array}{cc} 1 & 2 \\ & 1 \end{array} \quad 2 \quad , \quad \begin{array}{cc} 1 & 2 \\ & 1 \end{array} \quad 1 \quad 2$$

()

, 가 ,

(1)

1 , SON(Small Out-line Non-Leaded Package)

$$1 \qquad \qquad \qquad 1 \qquad \qquad \qquad (\qquad \qquad) \qquad \qquad ,$$

$$2 \qquad \qquad \qquad 1 \qquad \qquad \qquad (\qquad) \qquad \qquad \qquad (\qquad),$$

$$3 \qquad \qquad 1 \qquad \qquad (\qquad)$$

4 3 ,

5 1 ((a) 3 A - A , (b) 3 B
B),

6

5(a)

1 5 , (1a) 1 (2) , (4) .
 (2). 1 2 , (7) , (8) 가 (8) .

$$(2) \quad \begin{matrix} 3 & 5 \end{matrix} \quad , \quad \begin{matrix} (2) \end{matrix} \quad ,$$

), 가
(AI)

(Cu)

$$(\quad 3) \quad 18 \quad 3 \quad ((a) \quad 1 \quad , (b) \quad 2 \quad)$$

18	,	3	(1c)	1
,	1	(1a) (2)	(2)	(8)
,	3	(2y) (1b) (2)	(8x) (2) (8)	(8y) (8y)
,	,	(2y) (1c)	1	(8y)
(4)			
4	2	1		
19	20		((a), (b), (c))	
		(1d) (1d)	20(d) (2)	(2)
		2	1 가 2	가
				가
		(2)((4)가 (4) (8)	2 (3)	(4)가 (2) (4) (8)
		, ,		
) (8a) (2)	,	(8b)
		(2)((4)가 (4) (8)	2 (3)	(4)가 (2) (4) (8)
		, ,		
) (8a) (2)	,	(8b)
		(8) (5)가 2 (1d)	(5)가 (5) (8)	(8) 1 가
		(4)	1 (4)	1 가
		(4)	1 (2)	1 가
		(4)	4 2 2 4 (5)	4 1 (8) 4 1 가
3	3	5	5	3 (8)
		(4) 5	(4) 5	
		,	,	
		(1d)	19	20
		가 2 (2)	19(a)	(2)
		(4)		(2)
			19(b)	(4)
			(4)	
			(7)	
			(2)	
			가	

(6)

6 2

24 25 ((a), (b), (c)),

26

6 (8) (1g) (8) 1 (1g) (1g)

(1g) 24 25

가 2 24(a) 4 (2) (2) (4) 5

(4) 5

, 24(b) 2 (40) (41) (42) (40) (42) 2 (24) (40) (41) 2 , 2 (43)

, 25(a) (40) , 2 (8) (2), (44) (43) (4) 가 (7)

, (40) 2 (5) (8) (9) , , 25(b) , , 25(c) , , 2 (1g) 가 (8)

4

(7)

27

27 , (1h) 6

, 6 (1h) (8) (1h) (8) (5) 가 (1h) (4) (5) 1 (1h) (1h) 1 (1h) 2 (5) 가 (1h) 2

(8)

28

(1j) (1j) (1j) 1 (2) 1 (8) (1j) 1 (1j) 1

, (1g) , 2 (8) (1g) (5)가 ,

, 2 (1g) (1h) 28 , 2 (1j)

, 가 가 ,

, 가 ,

(57)

1.
(正面)

가 ,

가 1 , 1 , 1 , 2 , , 2 , 2 , 1

1 2 ,

2.
1 ,

1 2 , ,

3.
1 ,

1 2 , , (外周邊) 가 (延在) ,

1 2 , , 1 2

4.
1 ,

1 2 , , 2 , , 2 , 1 , , 1
3 가 , ,

1 2 , , 1 2 , 3

5.

4 ,

1 2 , 1 ,

6.

1 , ,

,

7.

1 , ,

(裏面) ,

8.

1 , ,

,

9.

4 ,

1 2 , 1 2 3

10.

4 ,

1 2 , 1 2 3

11.

1 ,

1 2 , 1 2

12.

1 ,

1 2 ,

13.

1 ,

,

14.

1 ,

,

,

2

15.

1

5

(長邊)

16.

1

1 2

17.

1 (邊) (群)

2

, 1 2 가 ,

1 2

18.

2

가

1

20.

가 (cavity)
 (mating surface) (成型型)
 (resin sheet)

21.

20

1 2 .

22.

20

1 2 , 가 (延在) ,

1 2 , 1 2

23.

20

1 2 , 2 , 2 1 2 , 1 2 3
† , 1 2 , 1 2 3

24.

23 ,

$$1 \quad 2 \quad 1 \quad ,$$

25.

20 ,

27

20

28.

23

1 2 , 1 2 3

29.

20

1 2 , 1 2

30.

20

1 2 ,

31.

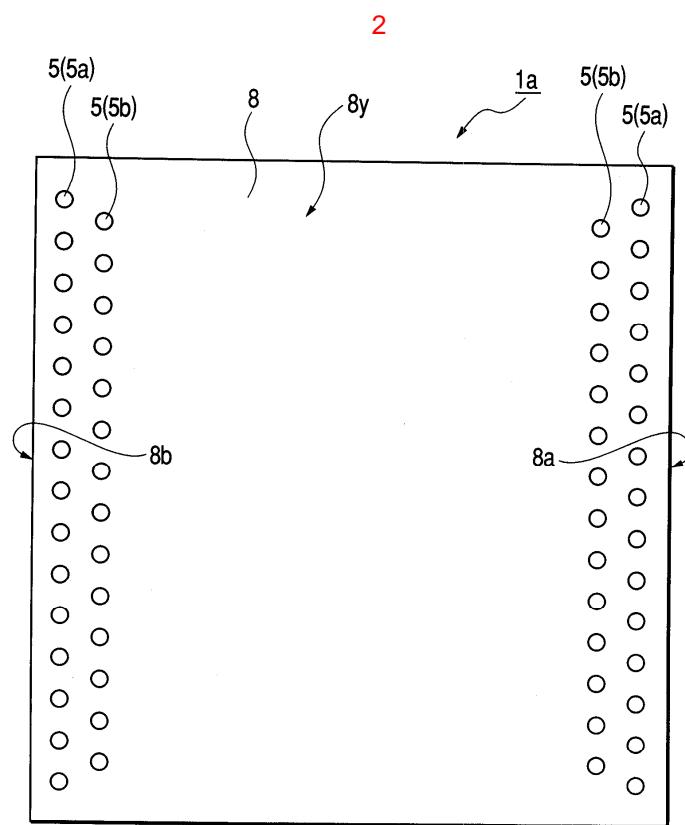
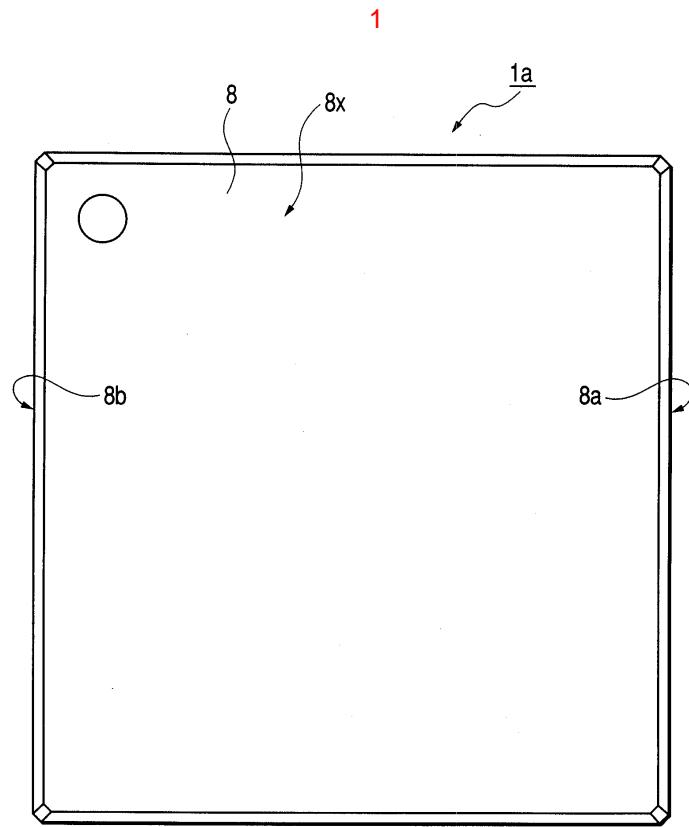
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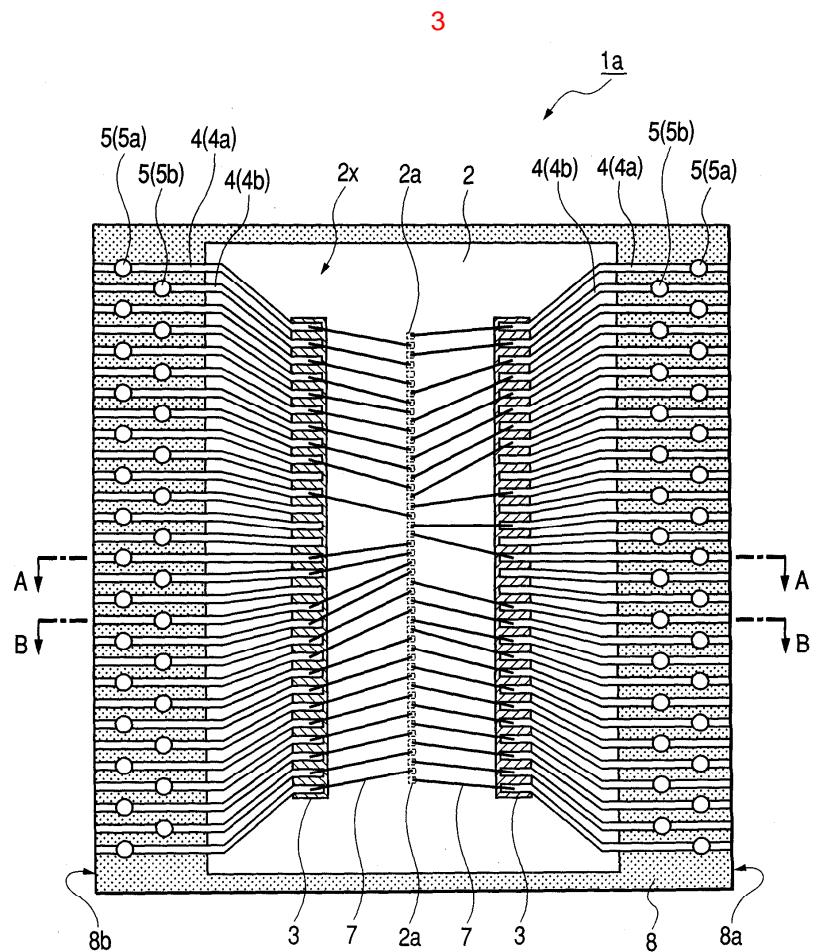
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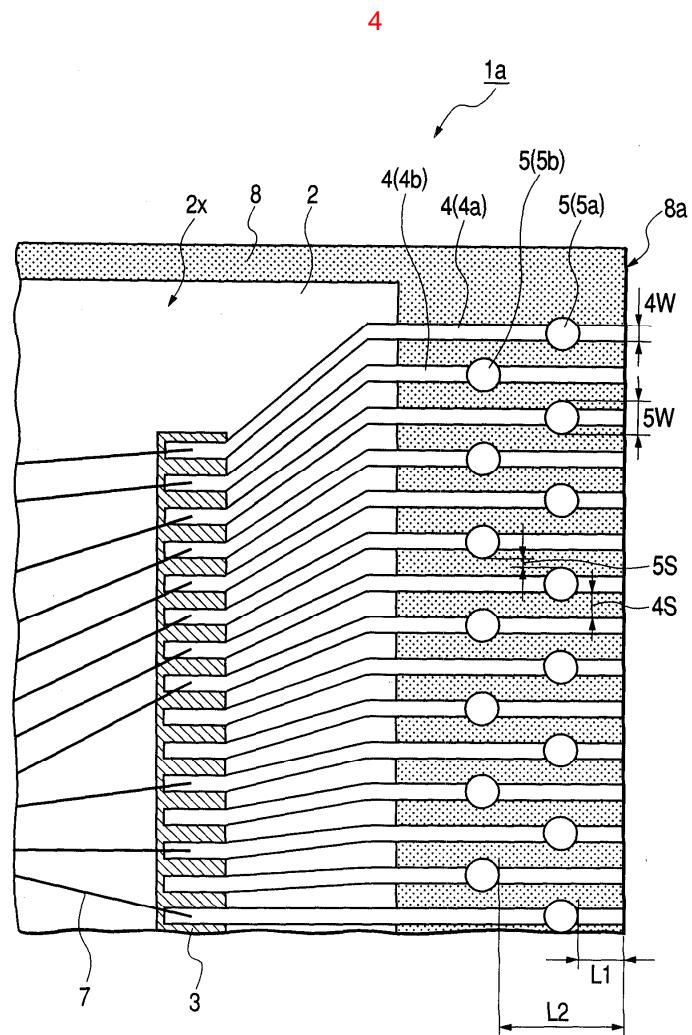
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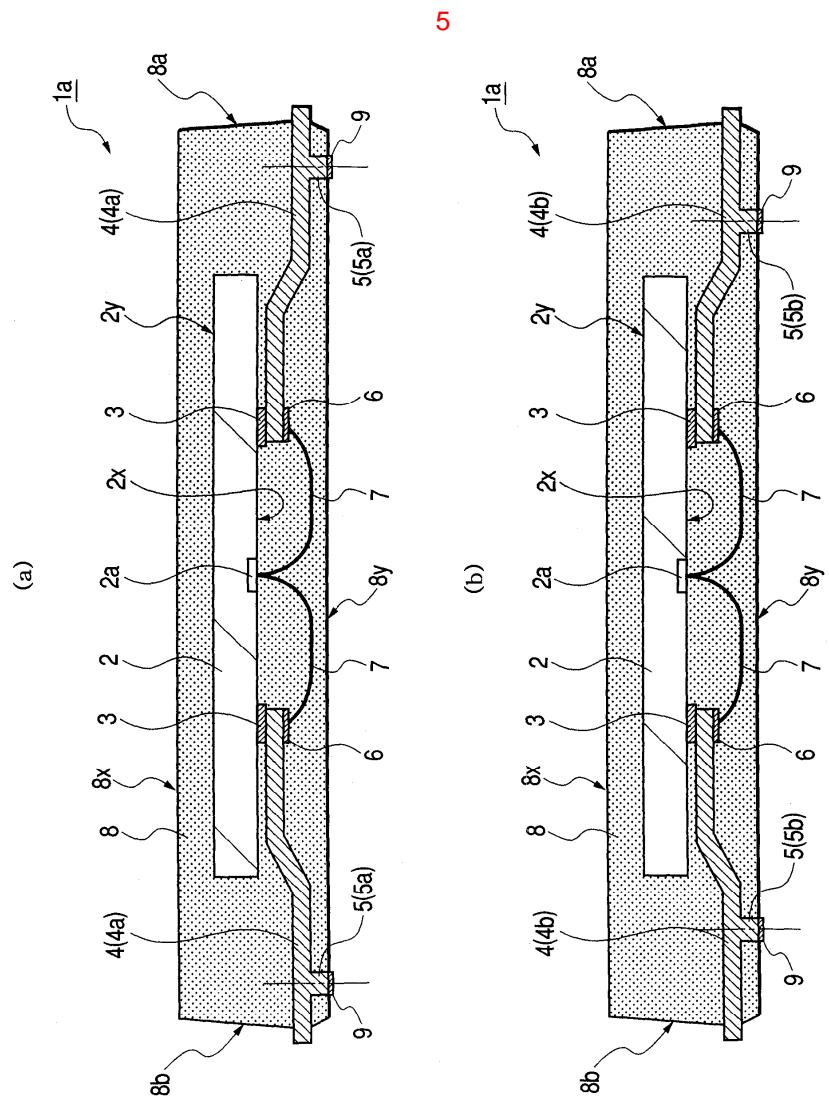
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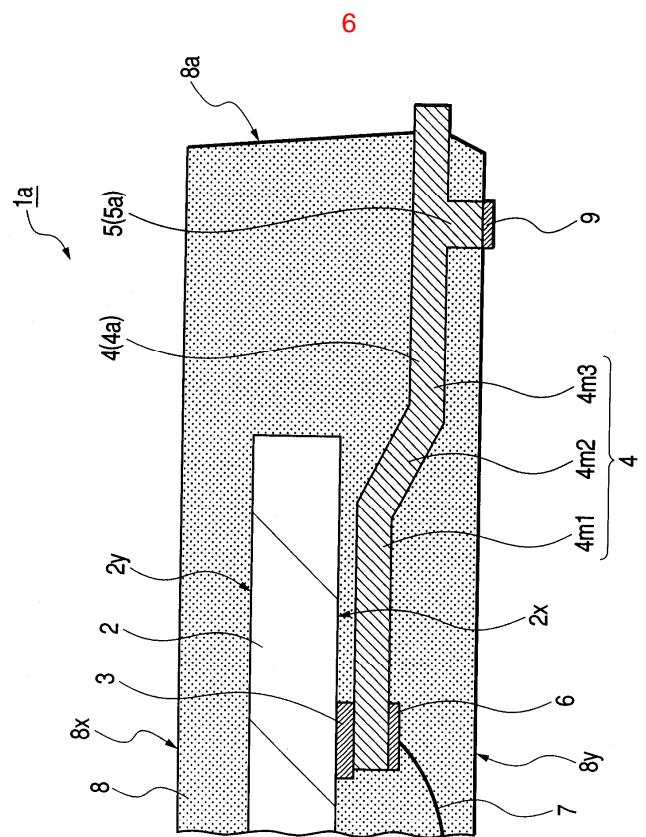
1 2 ,

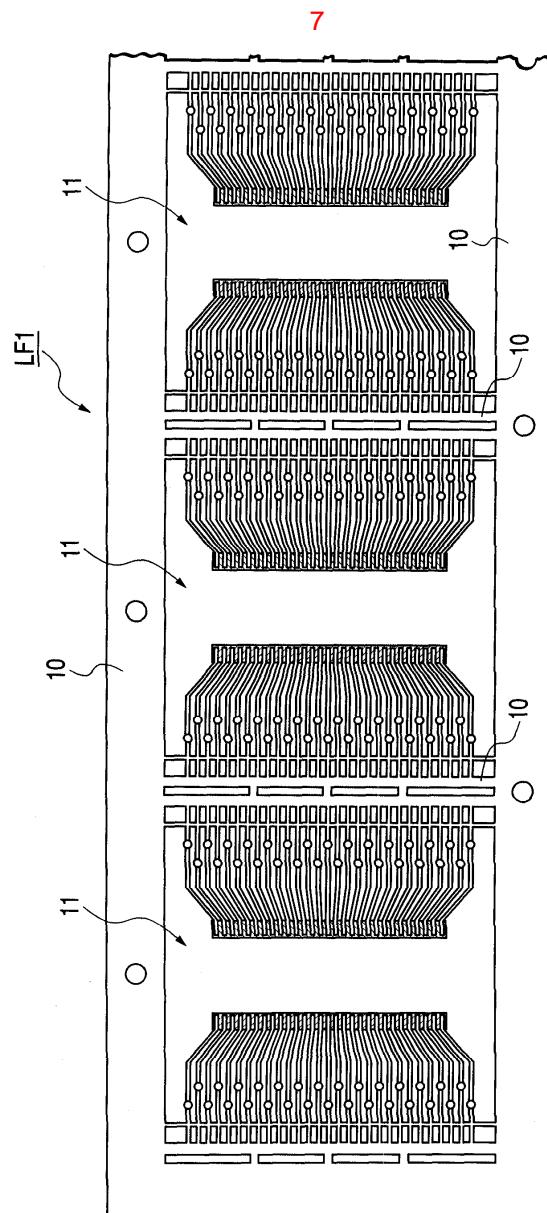


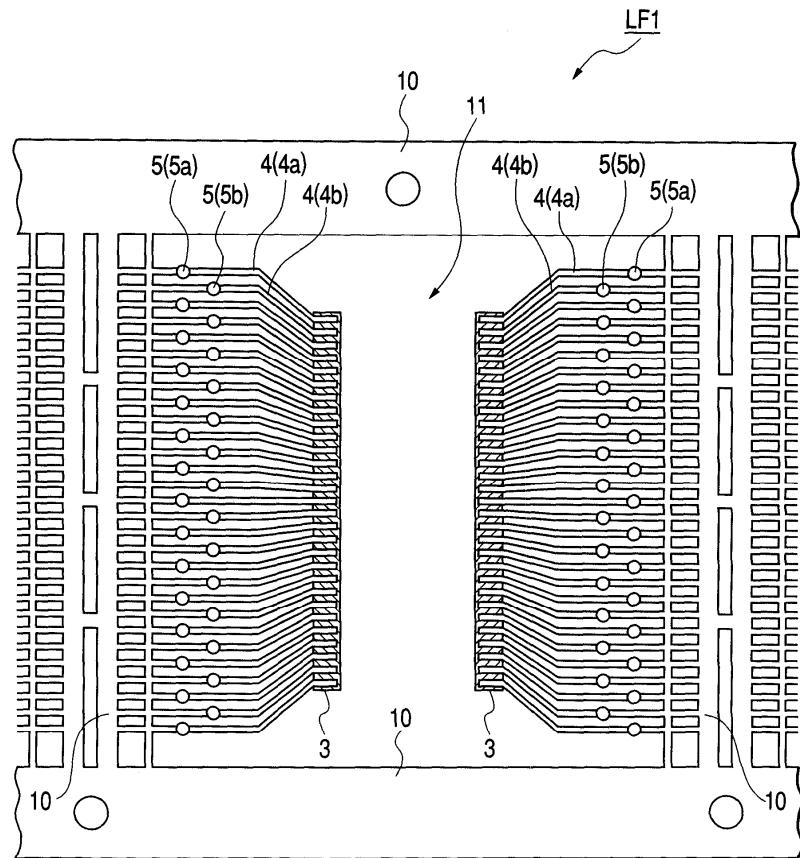




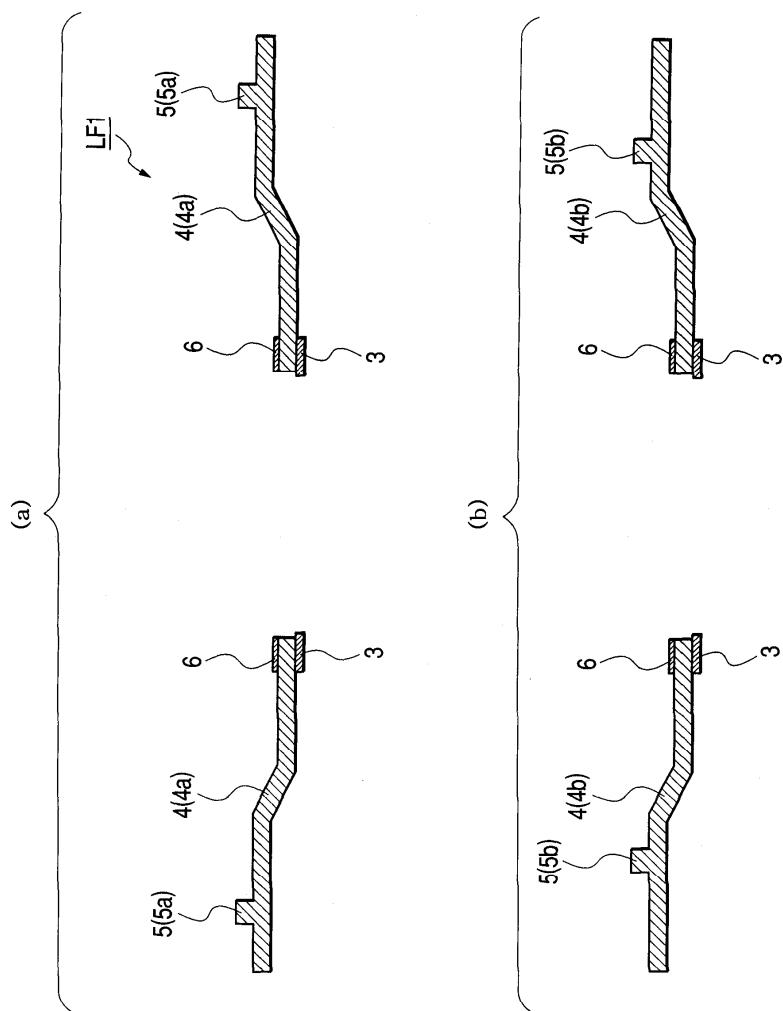




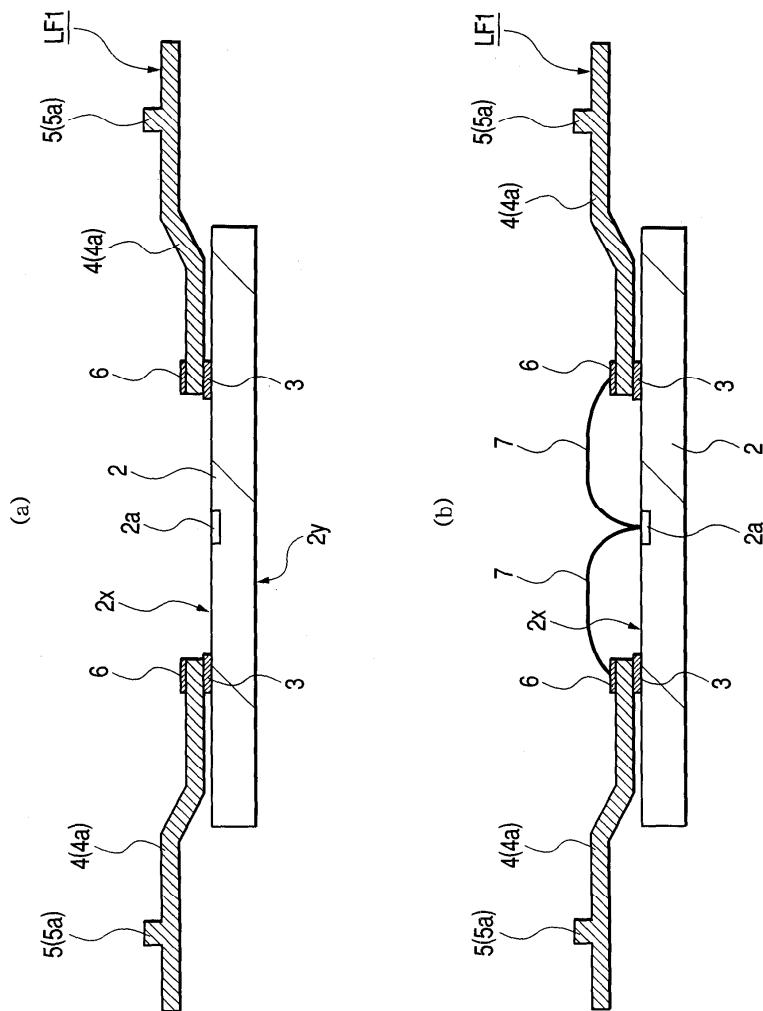


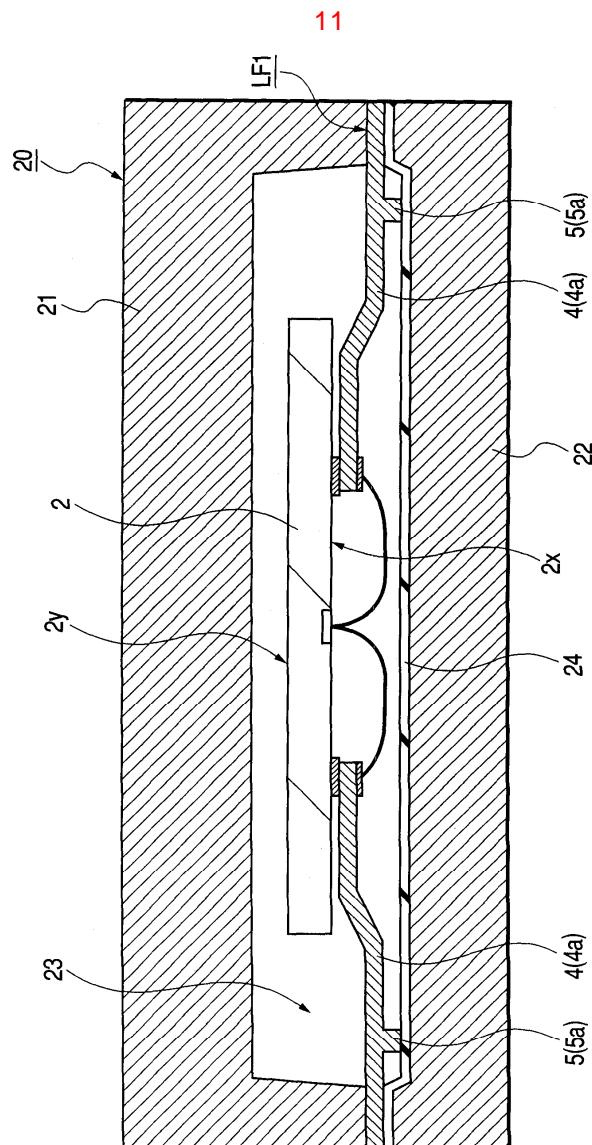


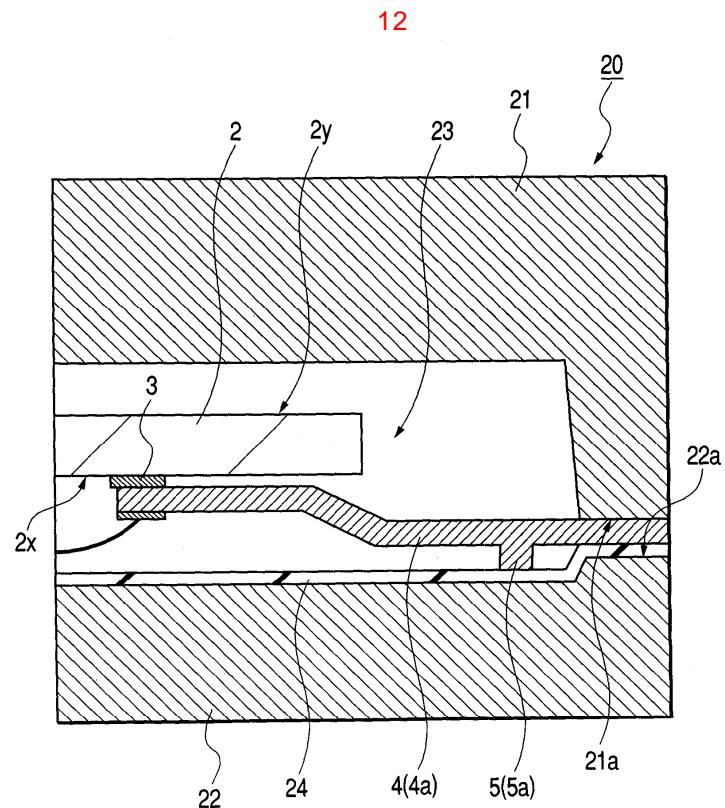
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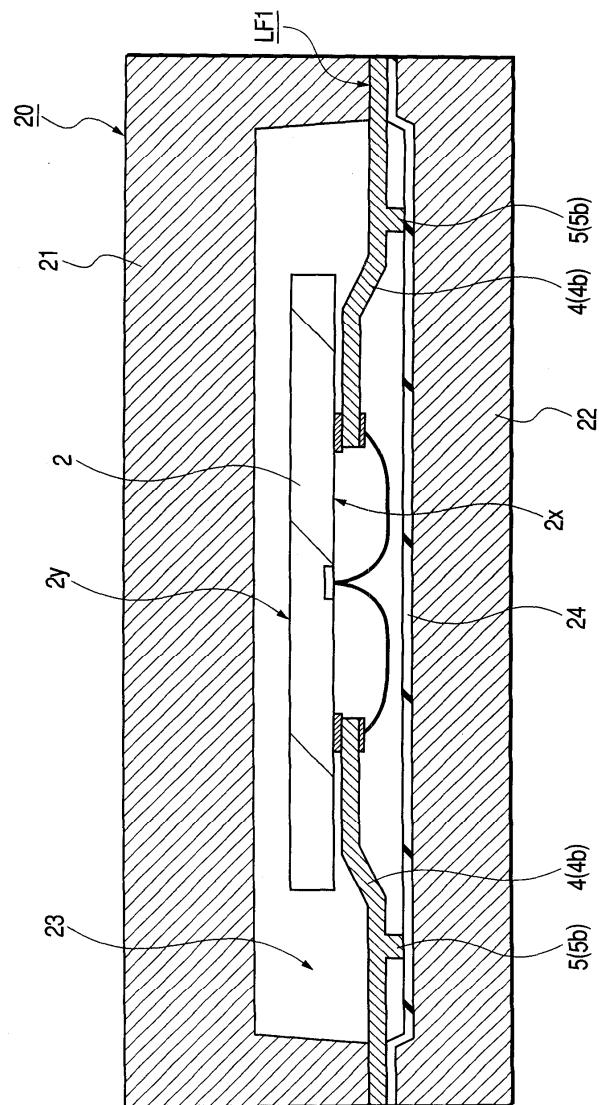
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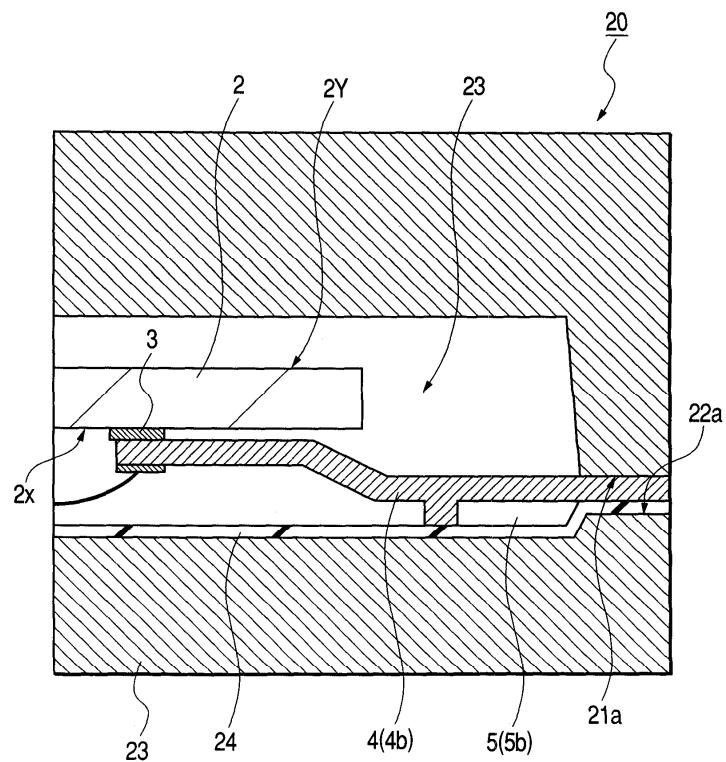




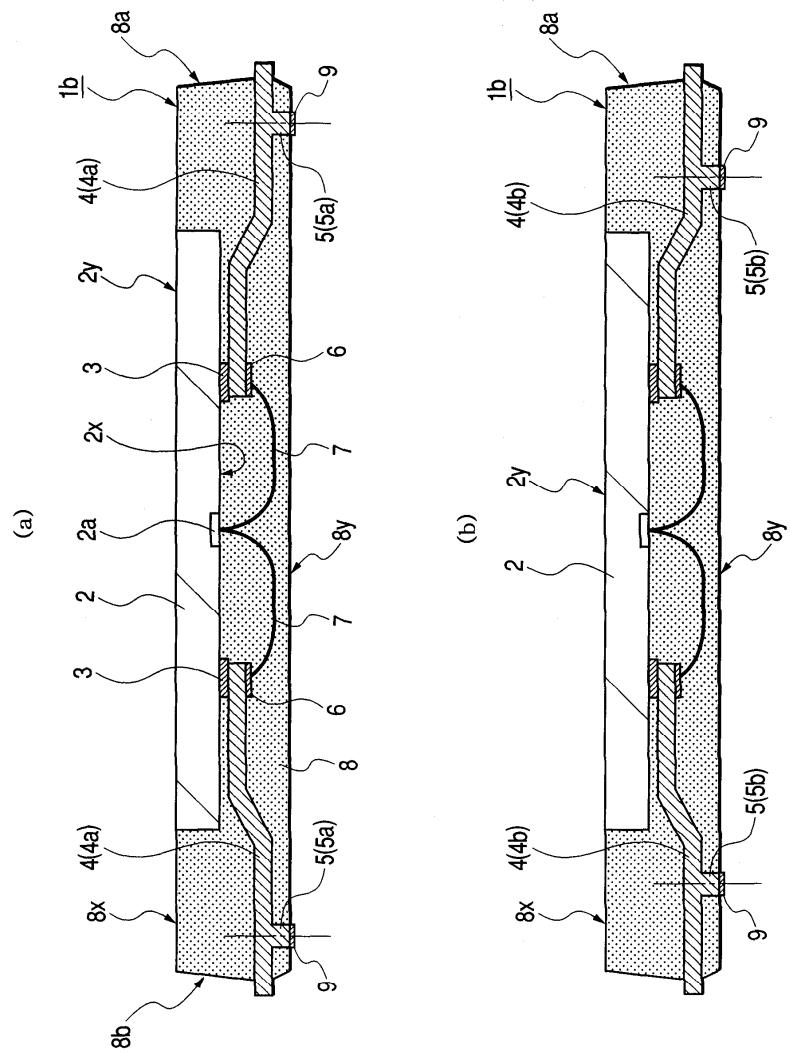
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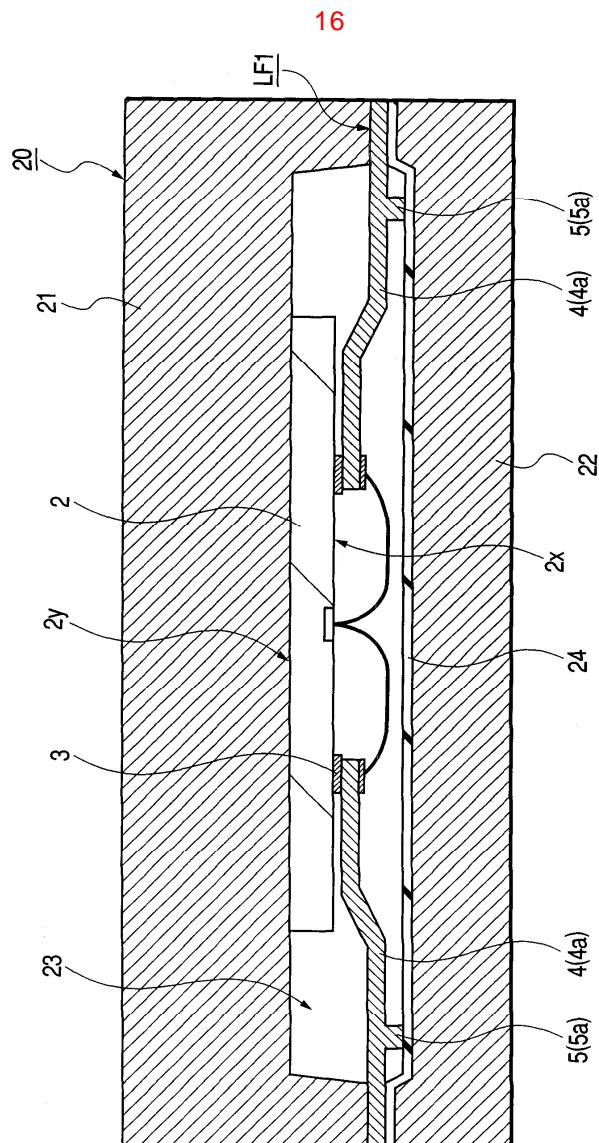


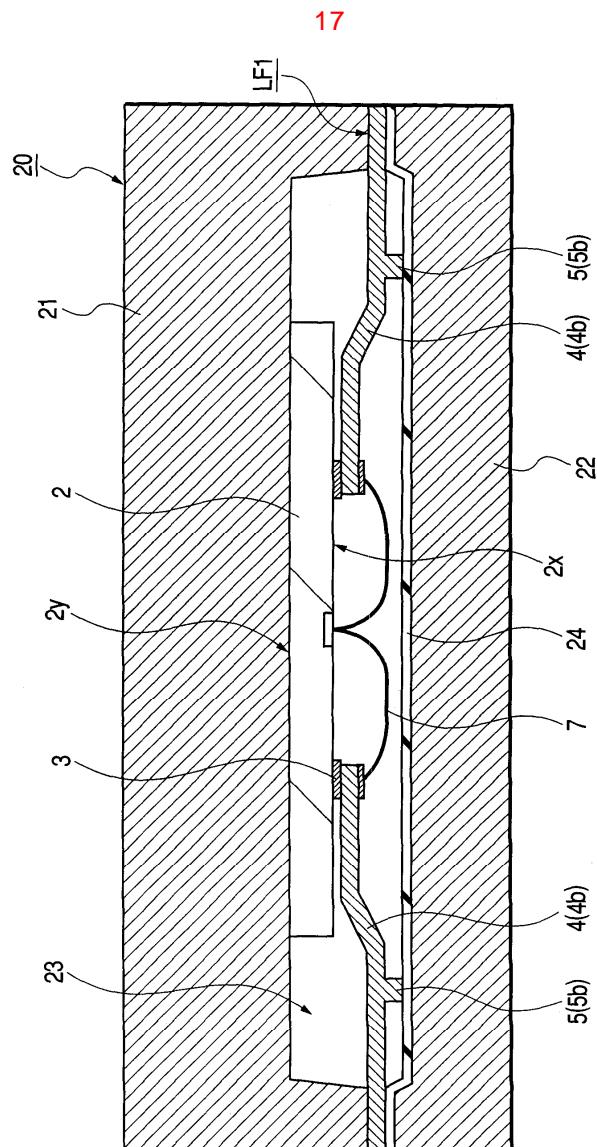
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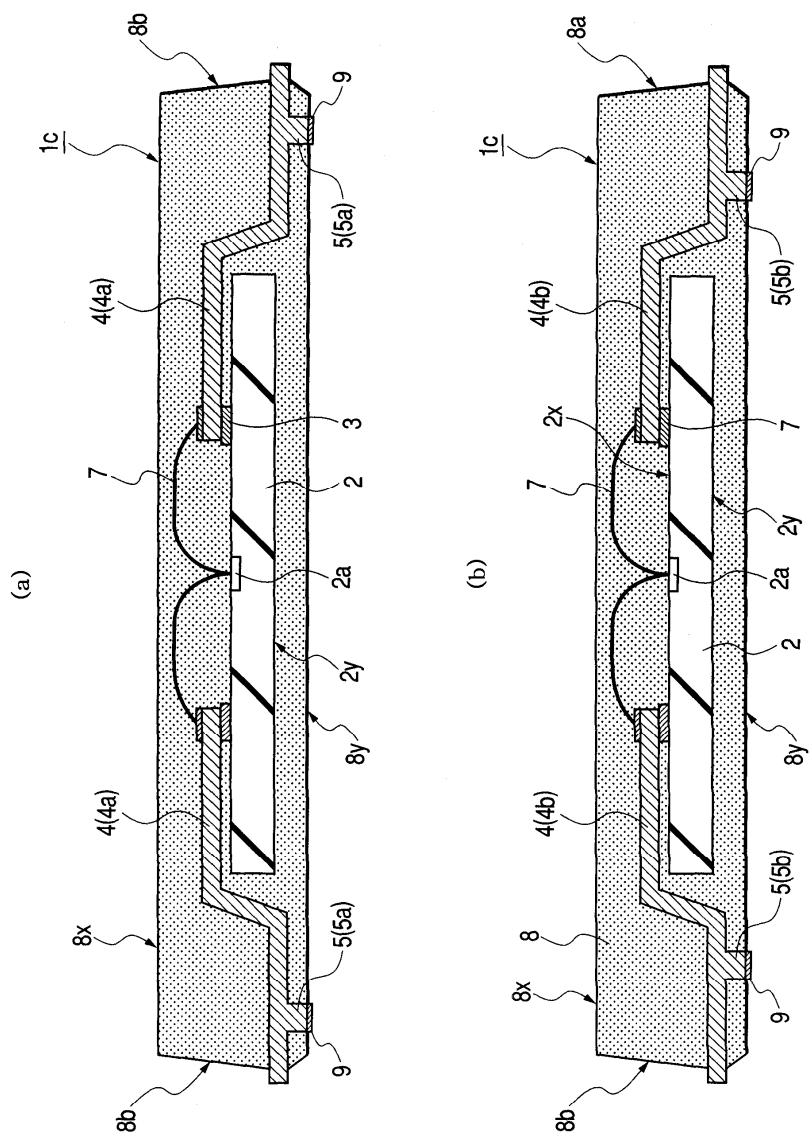
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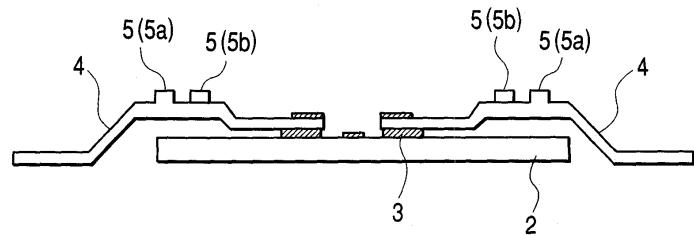


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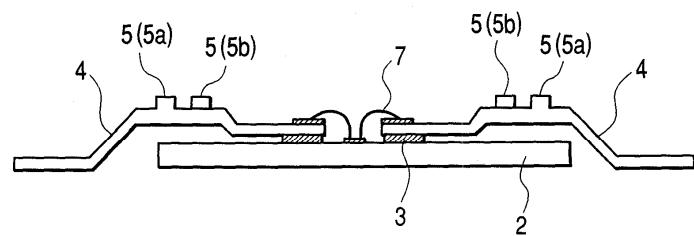


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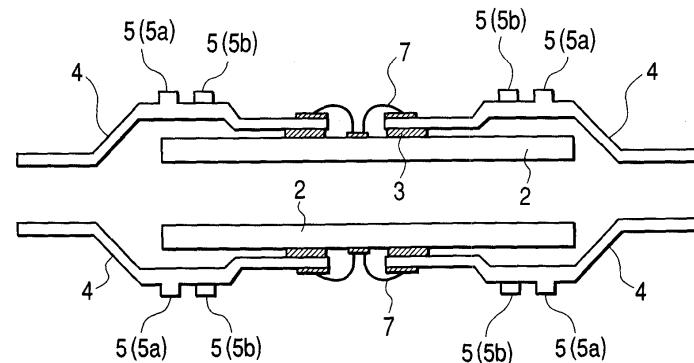
(a)



(b)

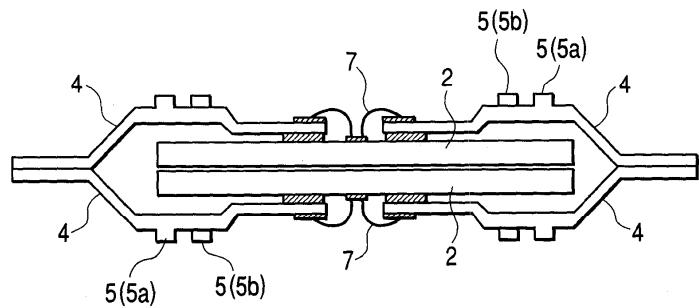


(c)

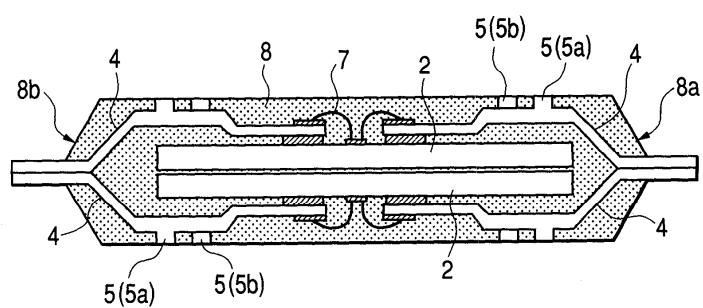


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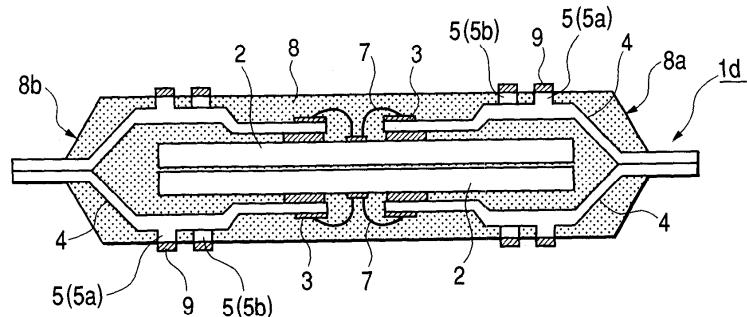
(a)



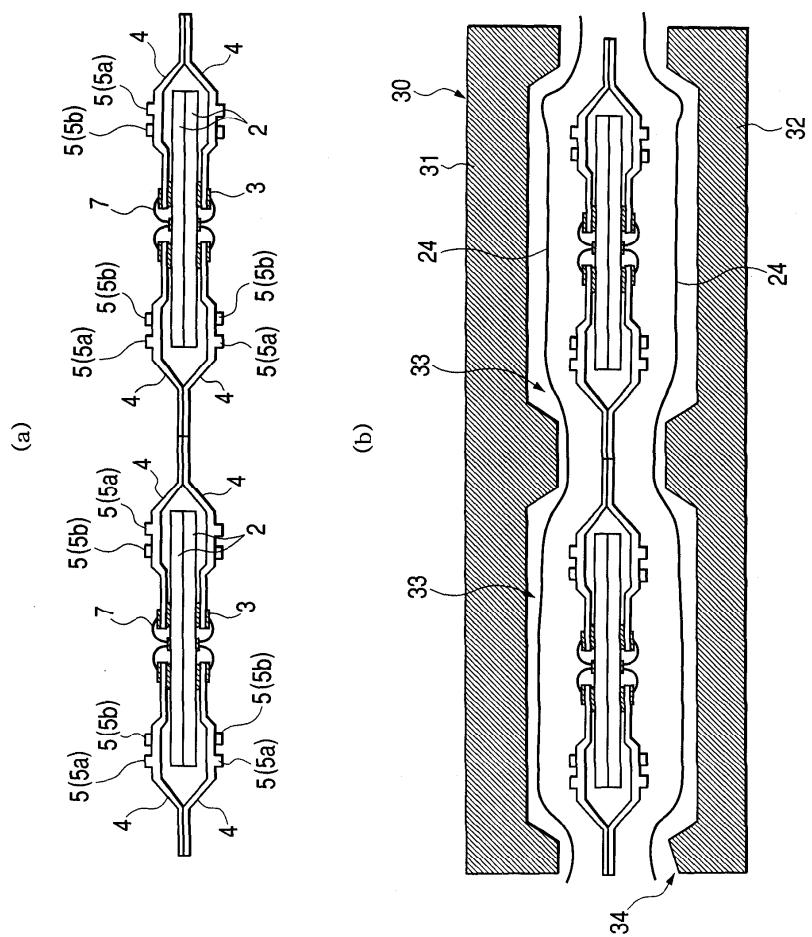
(b)



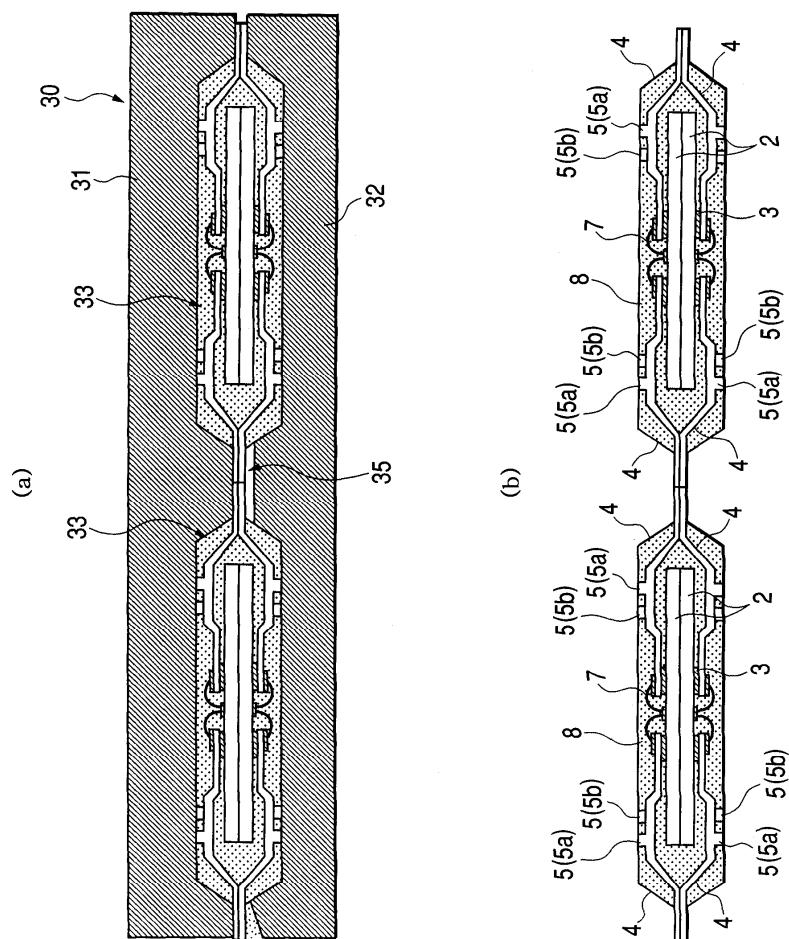
(c)



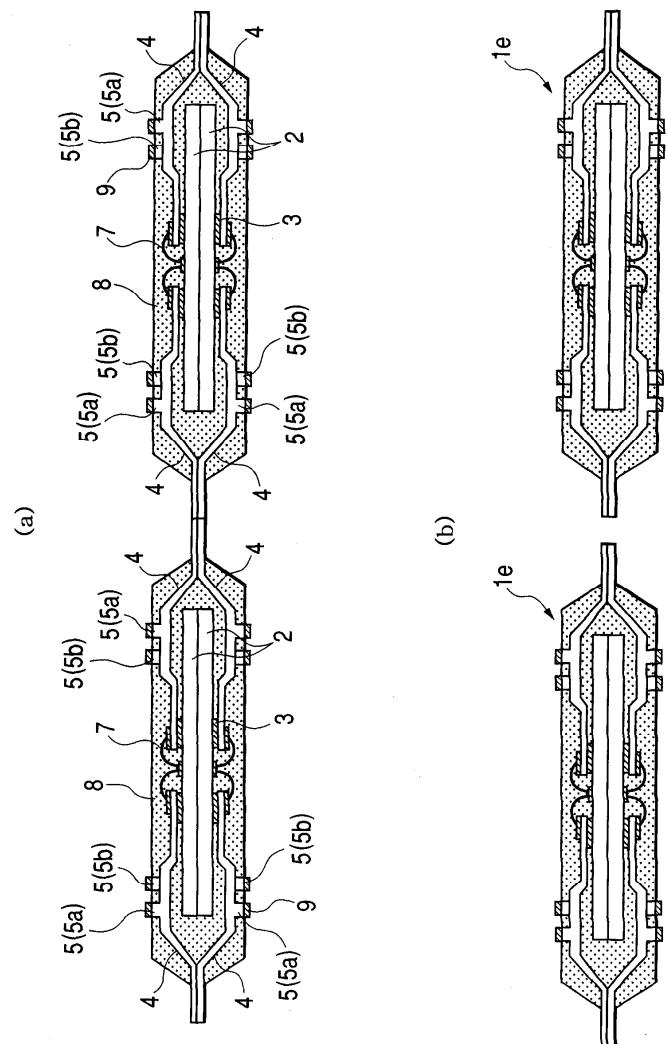
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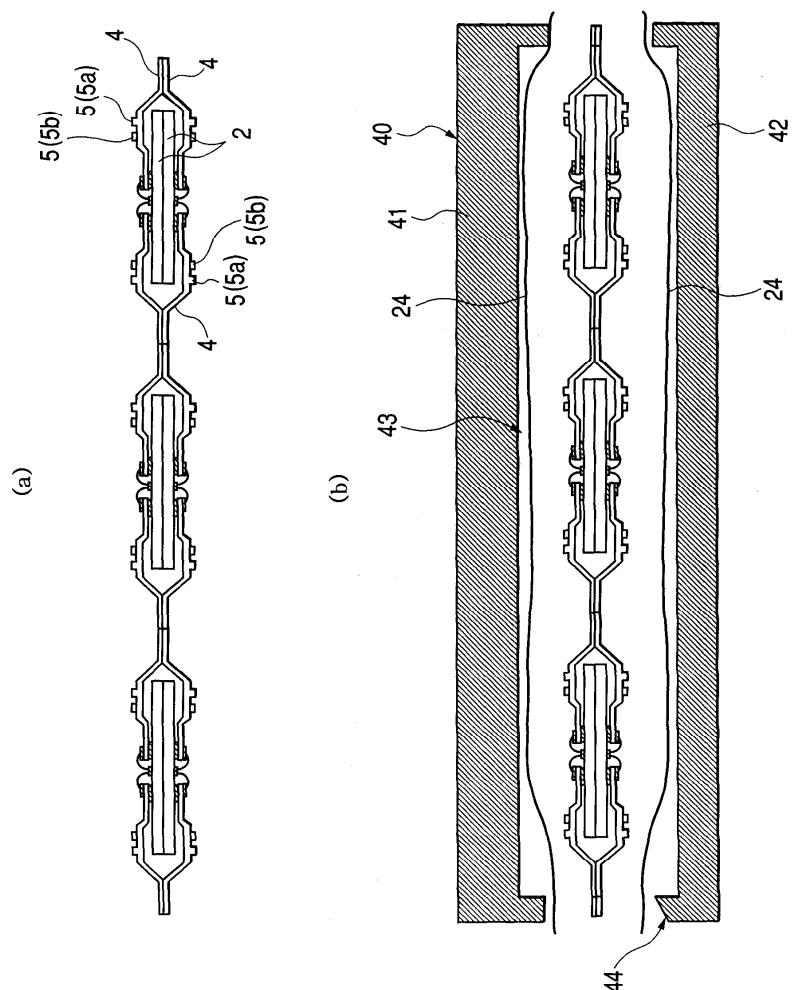
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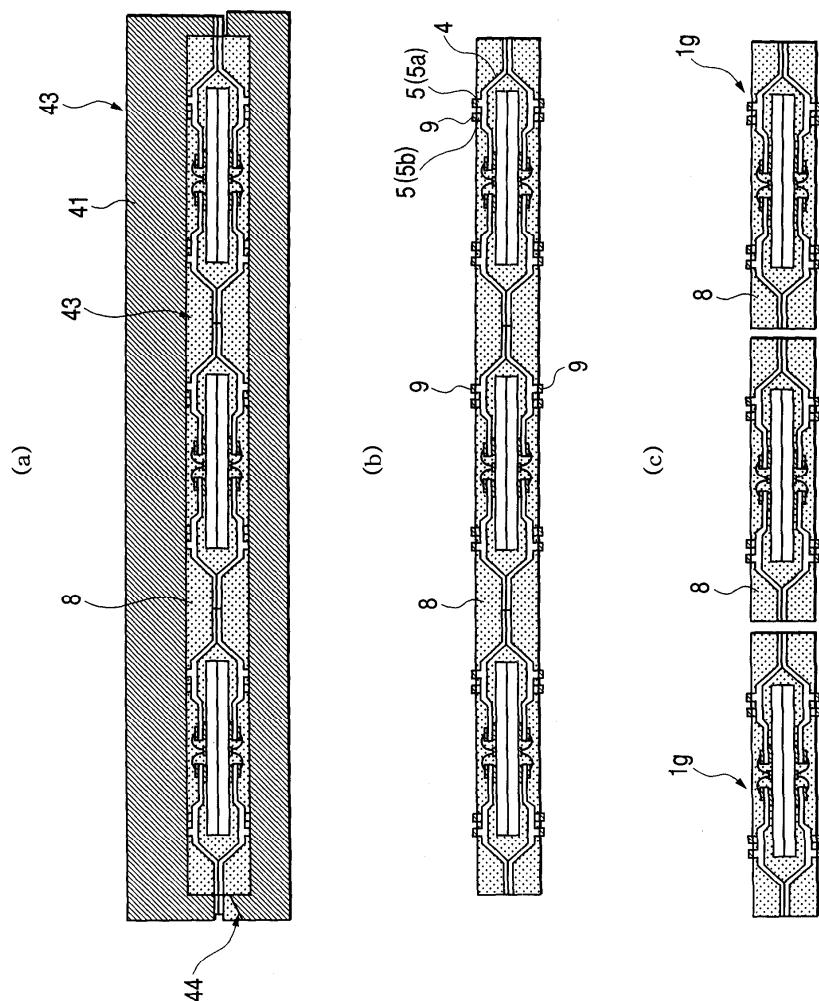
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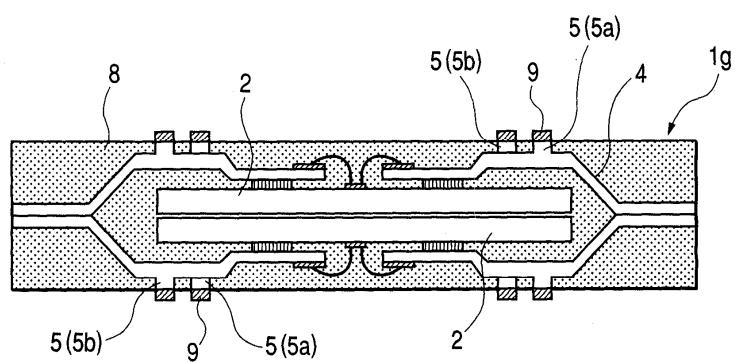
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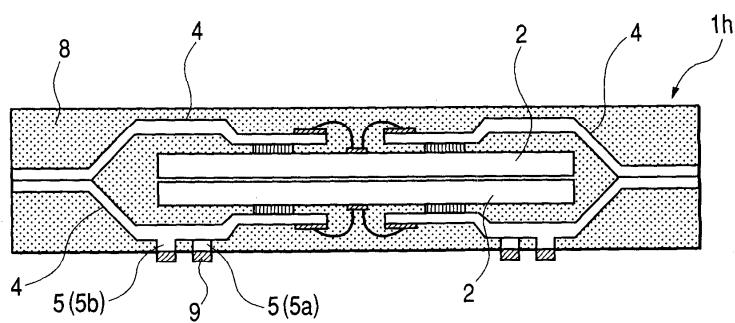
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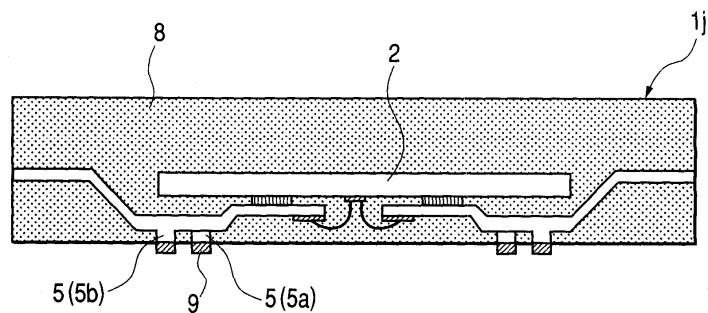
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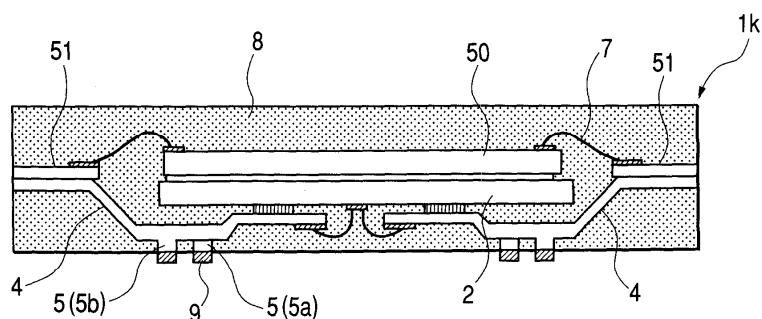
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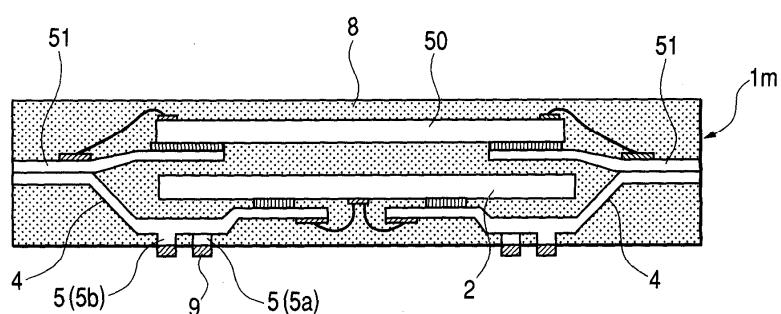
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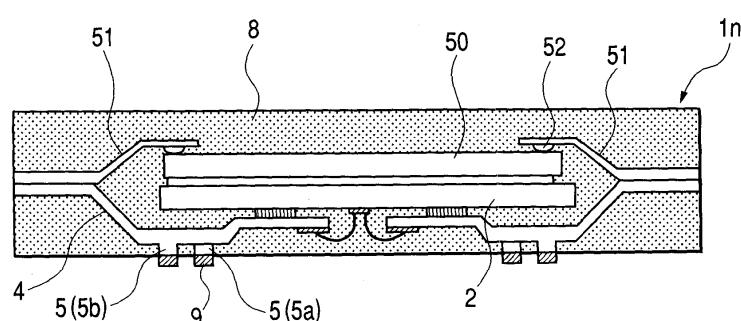
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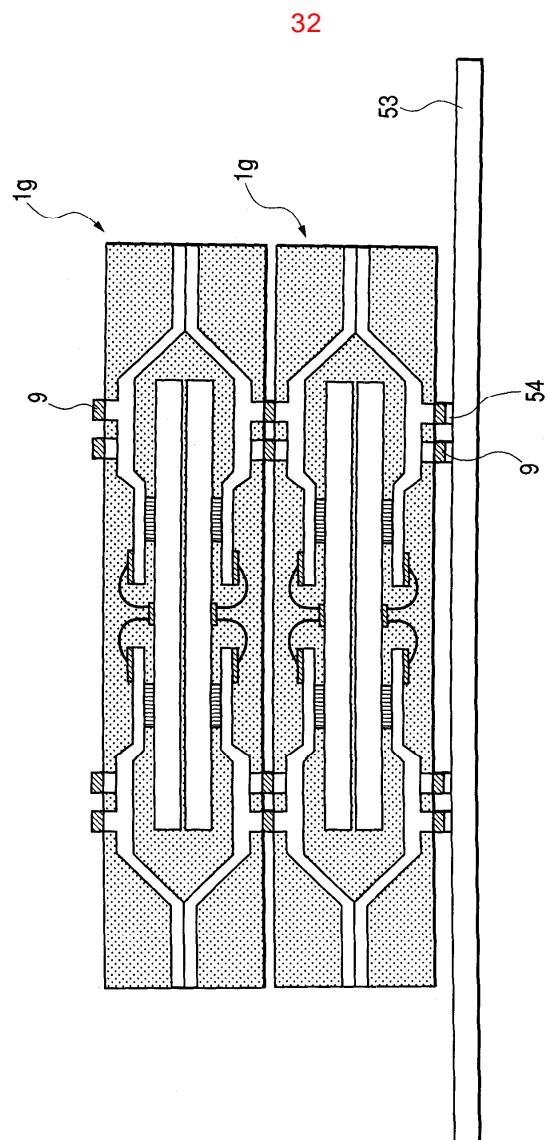


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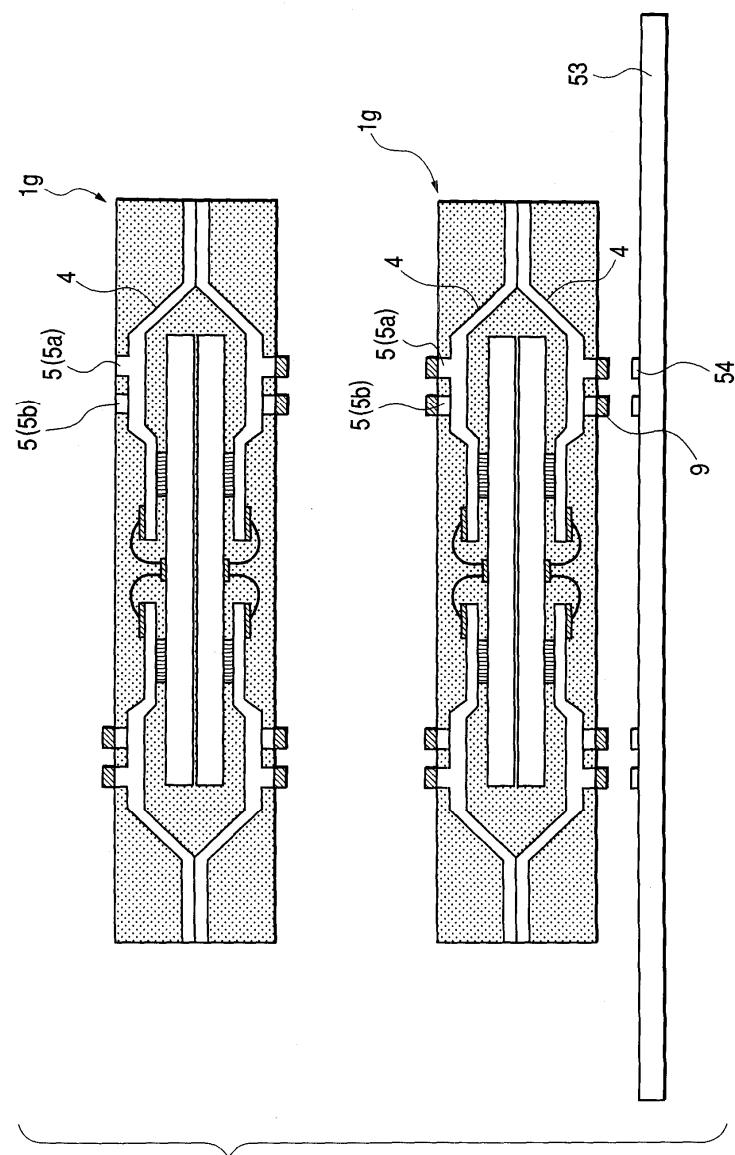


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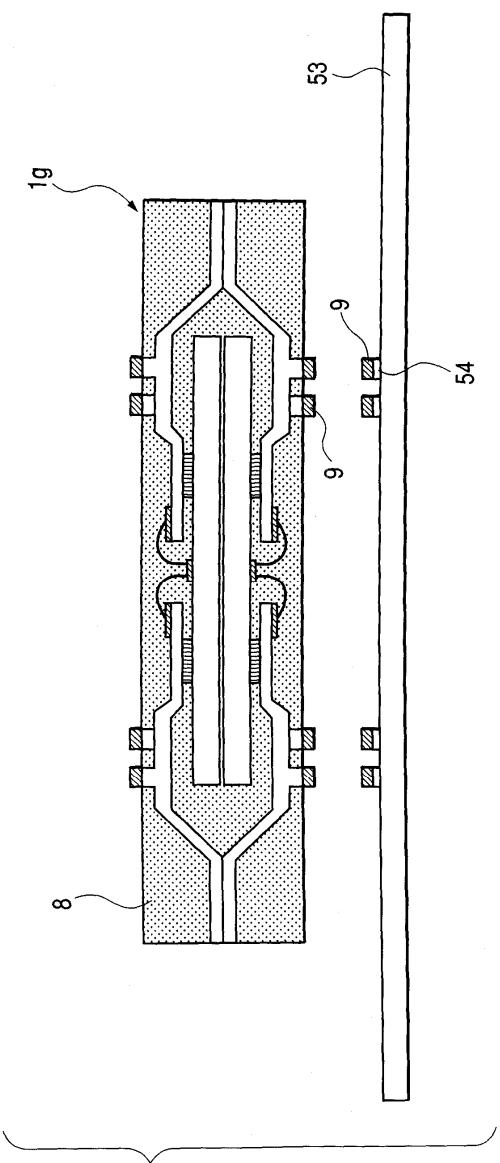




33



34



35

