

(19)
(12)(KR)
(A)(51) 。 Int. Cl. ⁷
H01L 23/12(11)
(43)2001 - 0099722
2001 11 09(21) 10 - 2001 - 0021691
(22) 2001 04 23

(30) 2000 - 125579 2000 04 26 (JP)

(71) 가 가
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2 2 3(72)
2 2 3 가 가
2 2 3 가 가
2 2 3 가 가
2 2 3 가 가

(74)

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(54)

(3) (2) , 1 (3) (3a) , 1 (3) 2 (6) , 1
2 (6) .

1

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1 1 BGA ,
 2 1 BGA ,
 3 ,
 4 2 BGA ,
 5 BGA .

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1 : 2 :

3, 6 : 8 :

9 :

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5 BGA (Ball Grided Array) . 5 , 11 , 12
 (11) , 13 (12) 1 , 14 1 (13) 2 , 13a,
 14a 1 (13) 2 (14) , 15 (12) .
 , BGA , 가 2 , 1
 .

BGA , , 1 (13) (13a)
 2 (14) , 1 (13) (13a) 2 (14)
 (14a) . , 1 (13) 2 (14) ,
 (filler)가 , 1 (14)

1 (14) , ,
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2

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(1)

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1

1

2 (1)

3 (2)

1

BGA

1

5

6

8 (2)

3a, 6a

1 (3), 2 (6)

2

2

2

BGA, 1 (3) (2), 1 (3) (3a)
 , 1 (3) 2 (6)
 , 2 (6) 1 (3), 1 (3) (3a) 2 (6),
 3a 6a, 1 (3) 2 (6) 가
 , 가,
 2 (6).

가 .

2, 1 (3) 2 (6) . 2 3, L . 3 (7) (7) . A
BGA
, B
2 (6) 1 (3) , 3
, L 0.5mm

(2)

4 , 2 BGA . 4 , 1 (3)
(3a) , (7) 2 (6) , (9) , 2 (6)
 , 1 (3) 2 (6) , 1 (3) (3a) 2 (
6) , 1 (3) (3a) 2 (6) (6a) .
 , (9) , 2 (6) , (3a) 2 (6) (6a)
 , (9) 2 (6) .

, 1 (3) 가 ,
, (7) , 가 .
, (7) , 가 , 2
G , 2 가 가 ,
, , .
, 1, 2 , BGA , 1
가 .

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, , 가 ,
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2 , , ,
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(57)

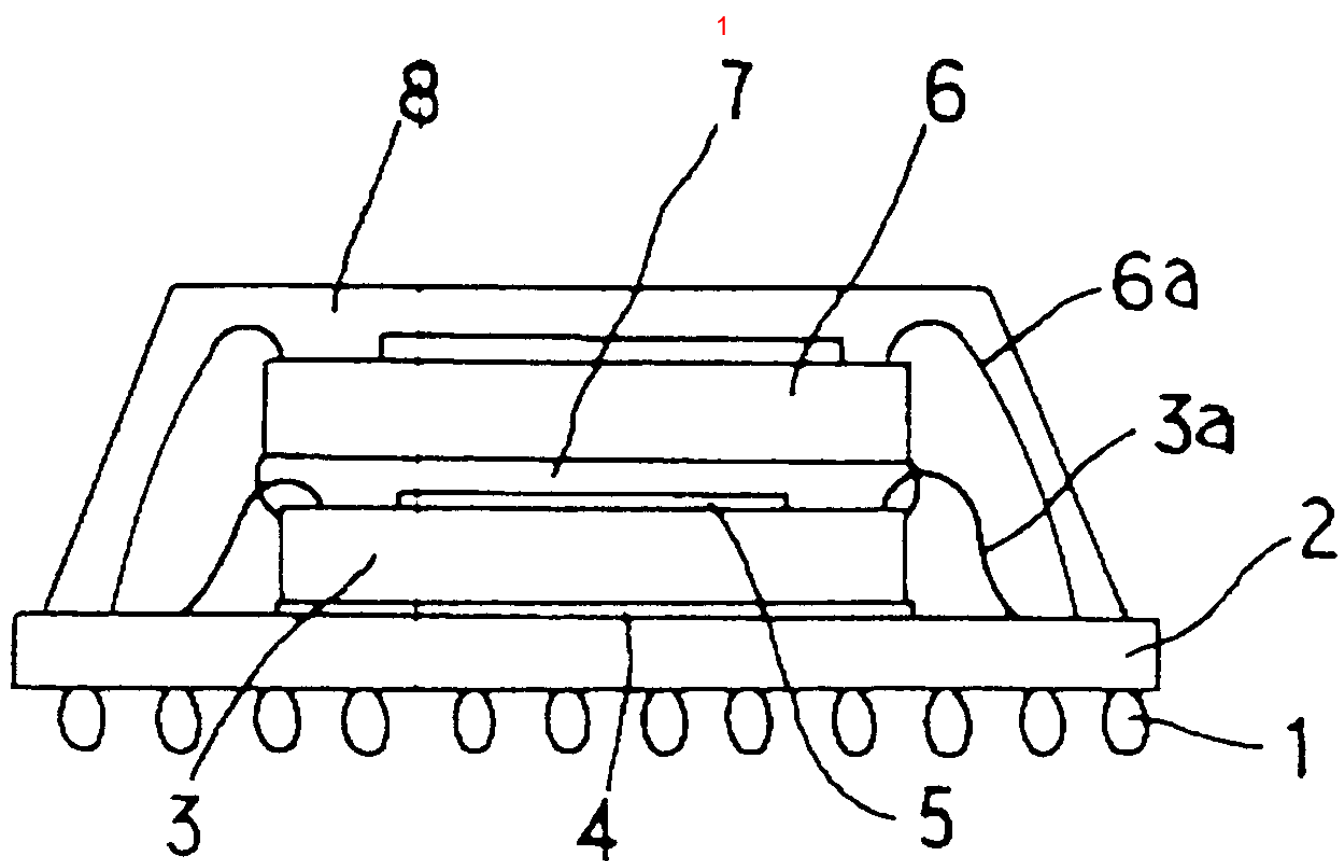
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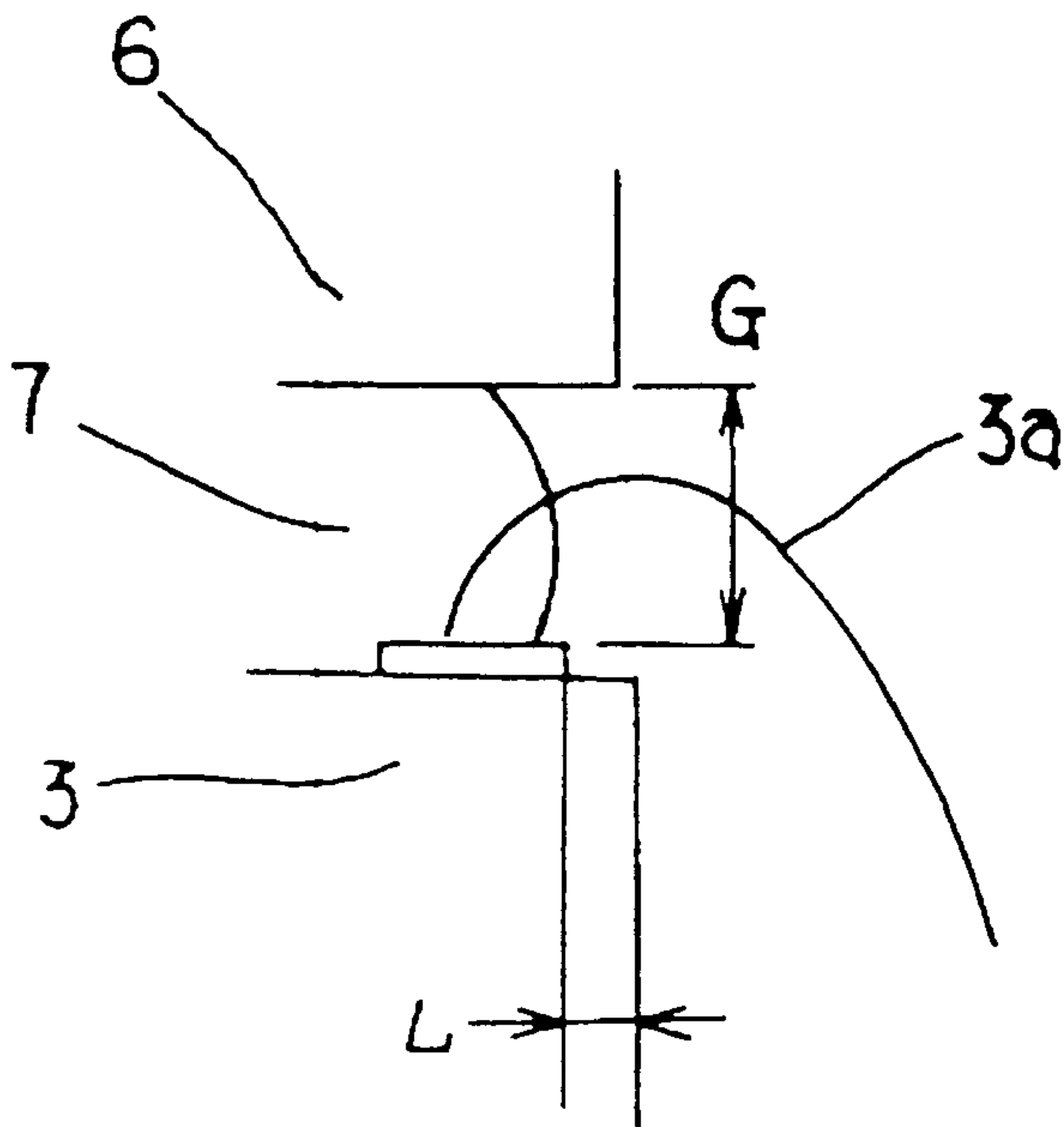
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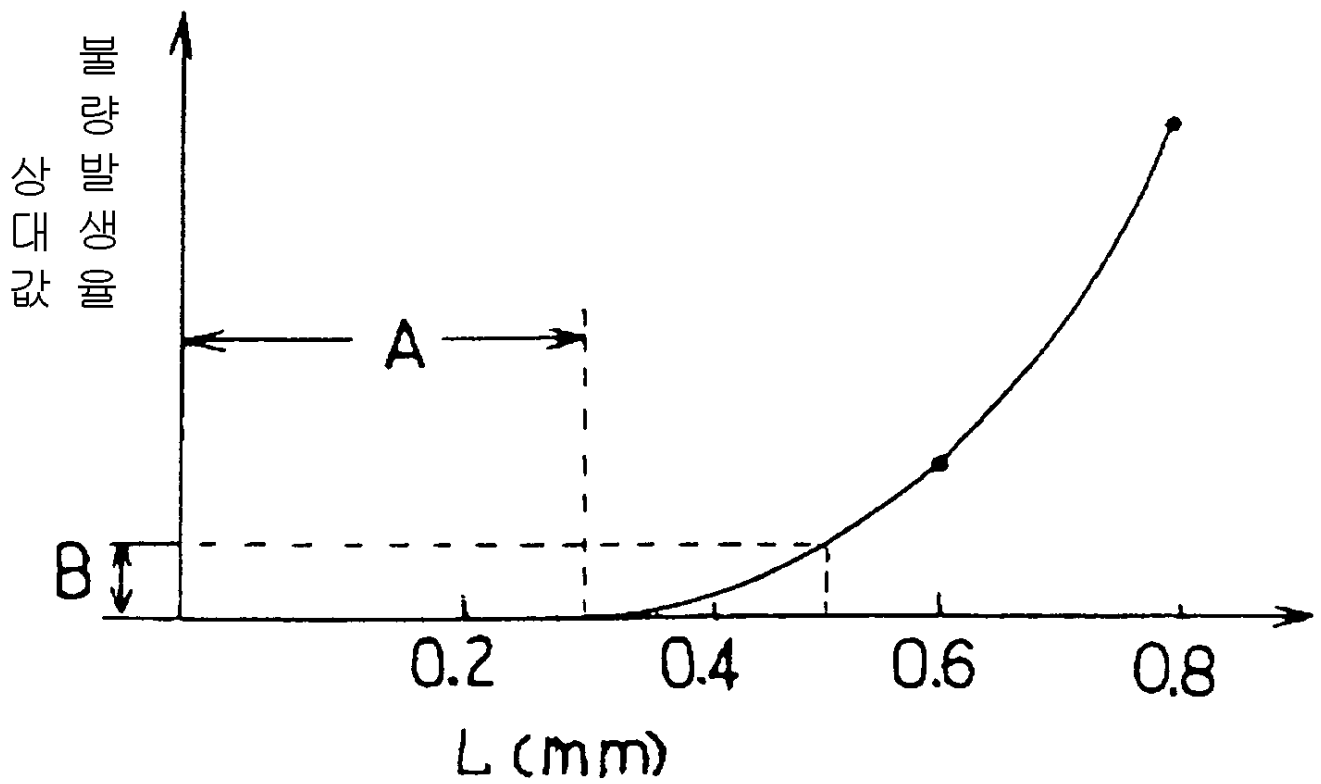
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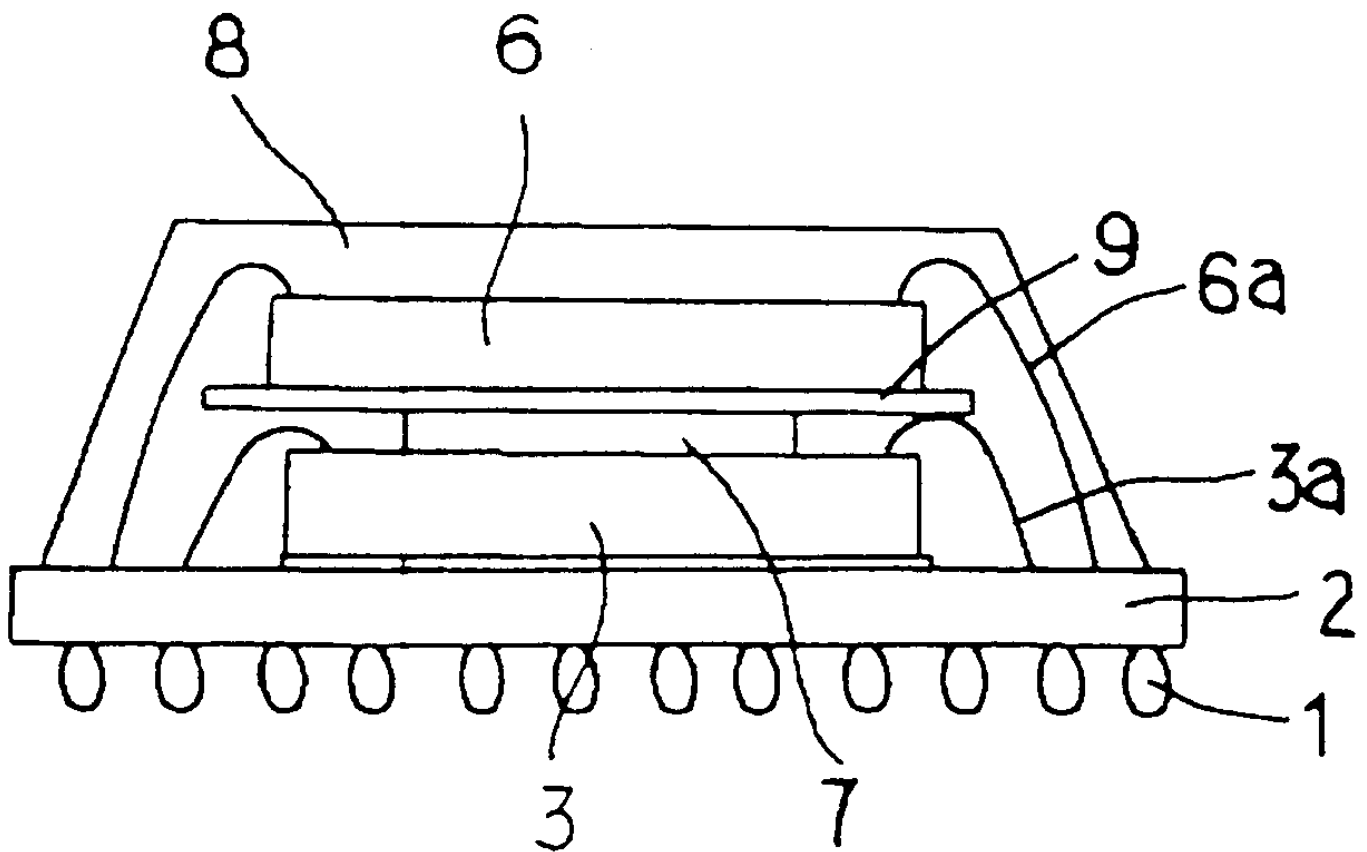




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