

(19)
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(43)2001 - 0099722
2001 11 09(21) 10 - 2001 - 0021691
(22) 2001 04 23

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

(71) 가 가
,

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)

:

(54)

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

1

, , , , , ,

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

* *

1 : 2 :

3, 6 : 8 :

9 :

, , 1 2 , ()

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

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

, , ,
 1 (14) , ,
 , , , 2

(1)

, , . 1 , 1 , 2 (1) . 1 , , 3 (2) 1 BGA (4) 1 (7) 2 ,
 1 , 5 , 6 3a, 6a 1 (3), 2 (6) , 8 (2) .

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

2 (6) 1 (3) , , , L 0.5mm 3

(2)

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

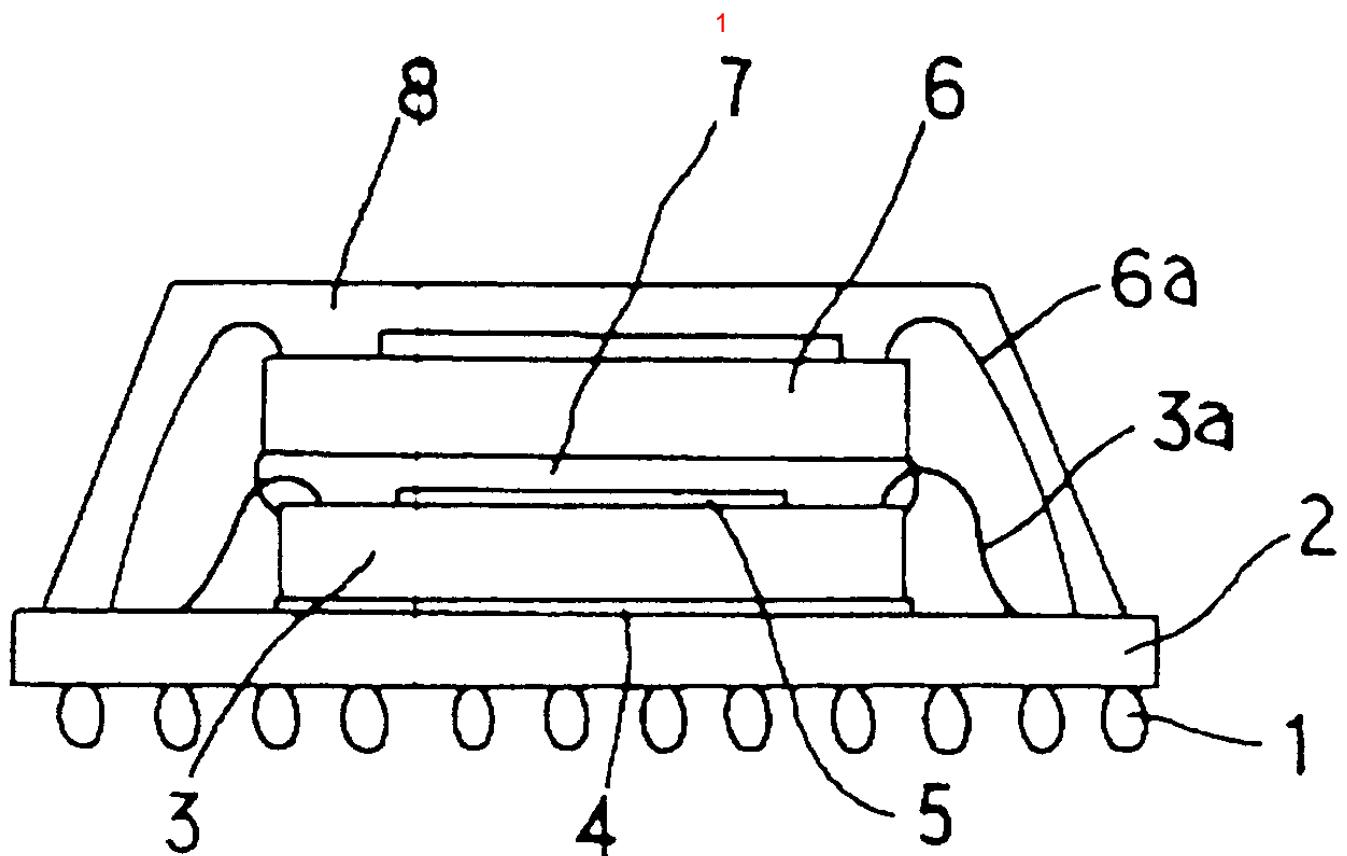
1 (3) , 가 , ,
, (7) , , 가 .
, (7) , , 가 .
G , 2 , 가 , .
,
, 1, 2 , BGA , , , 1
가 .

(57)

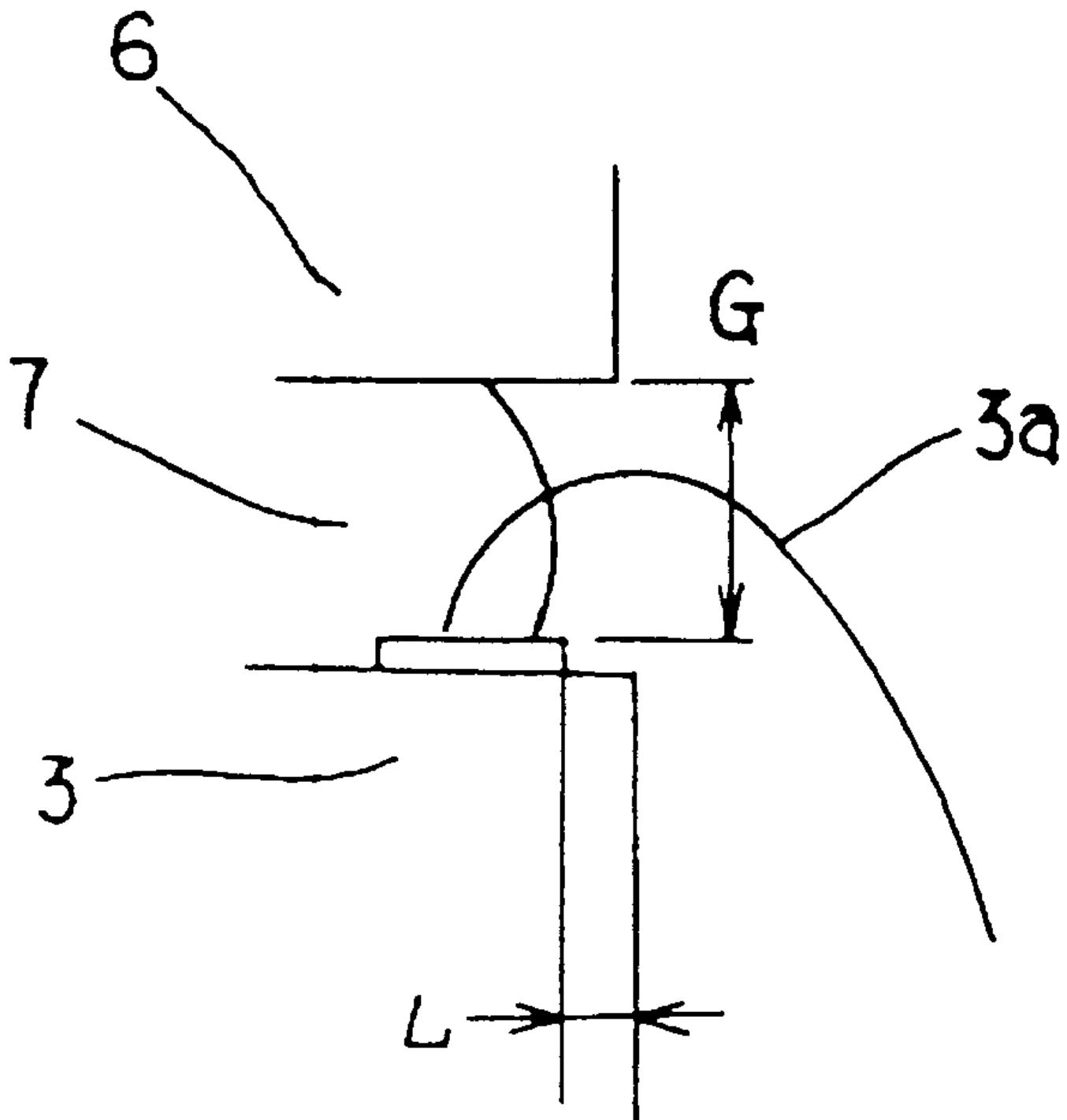
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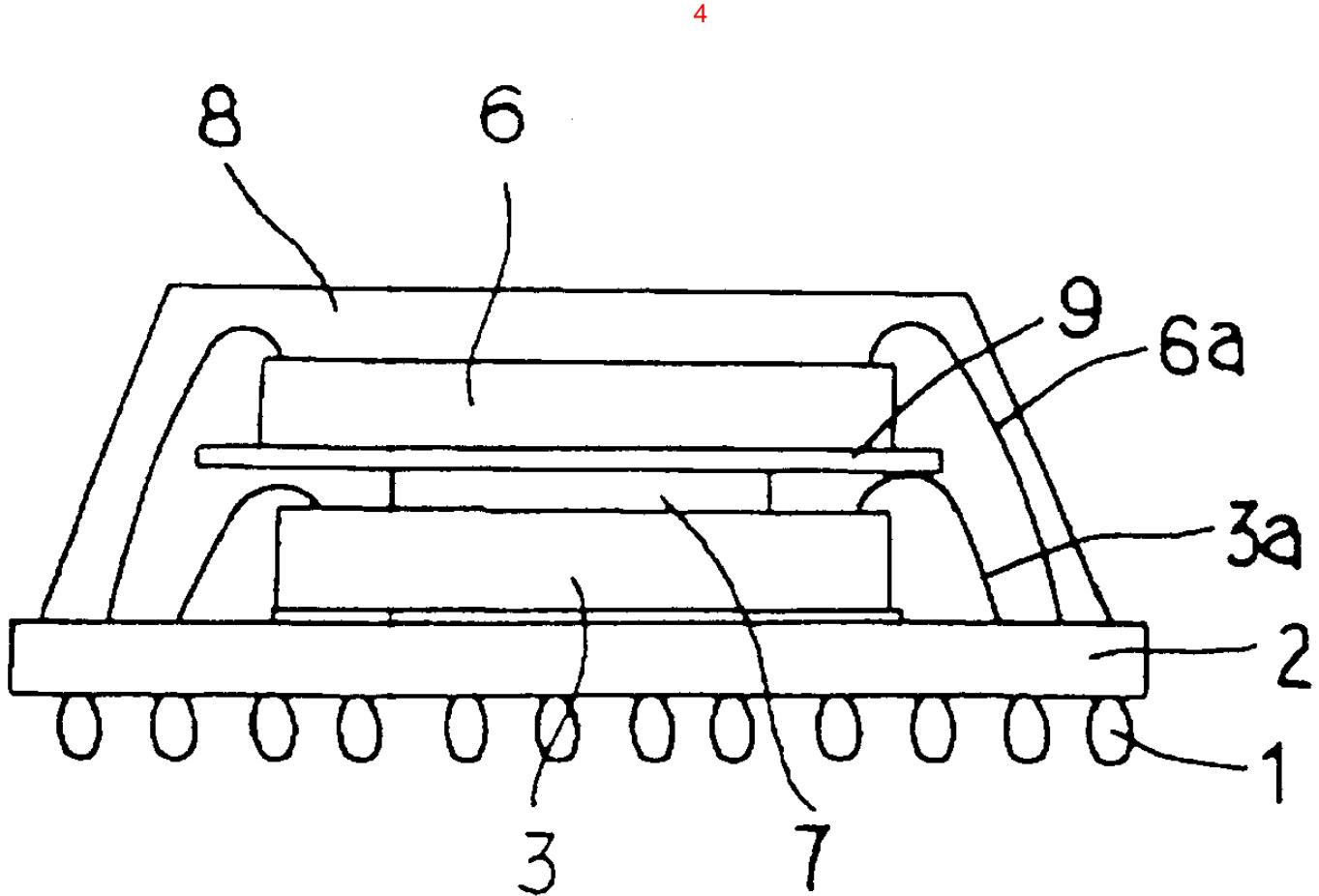
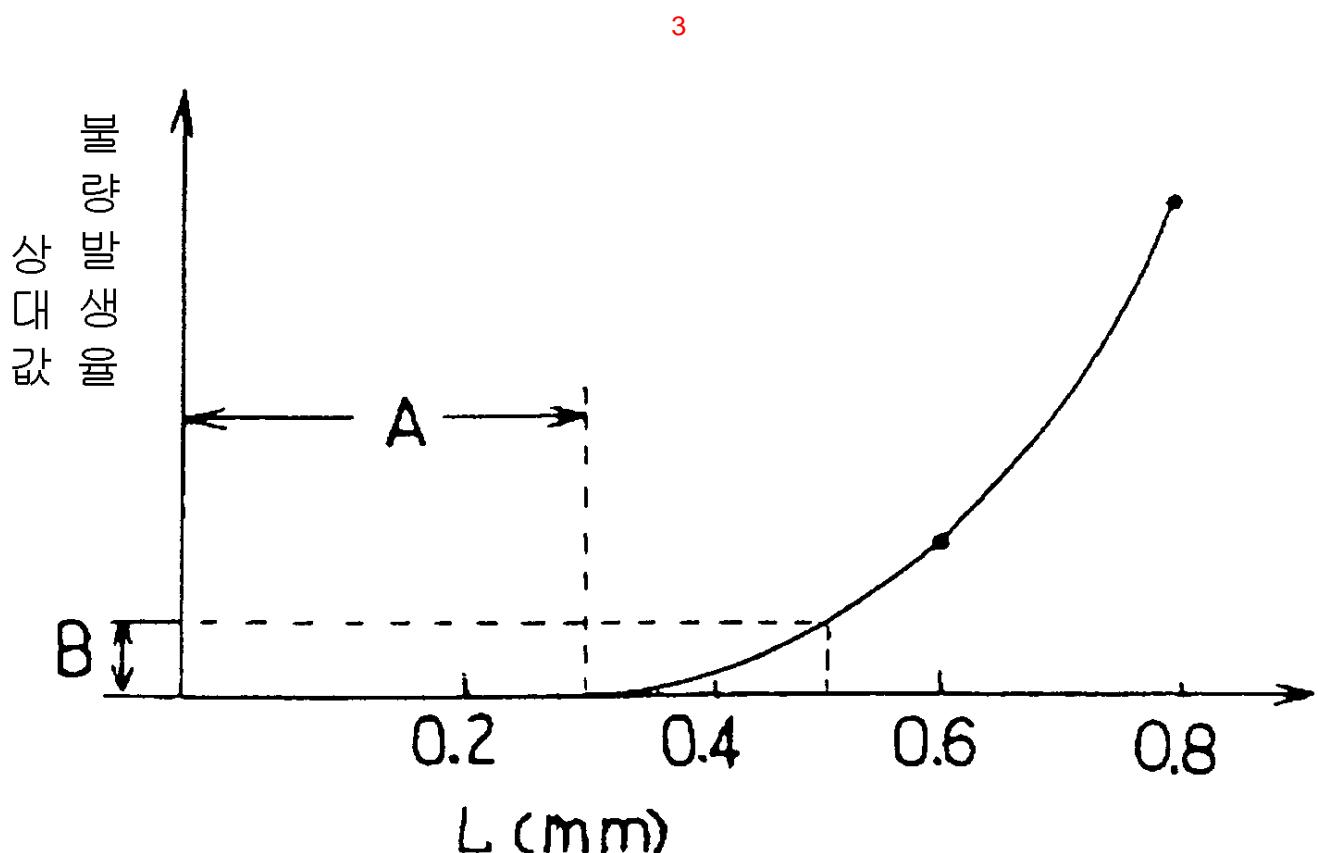
2.

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2





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