Fig. 1(a)

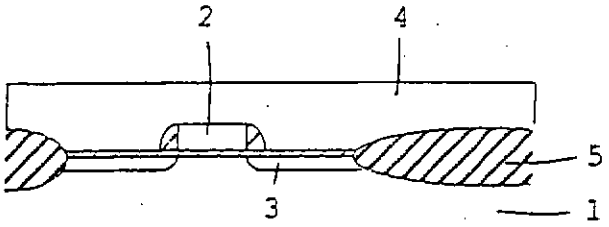


Fig. 1(b)

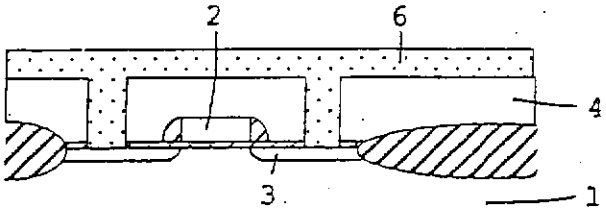


Fig. 1(c)

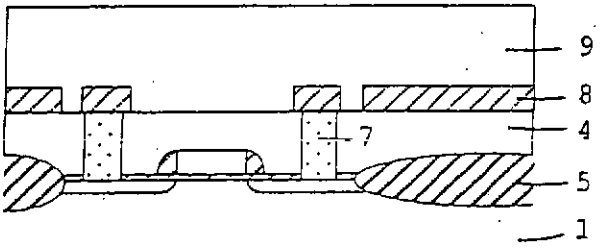


Fig. 1(d)

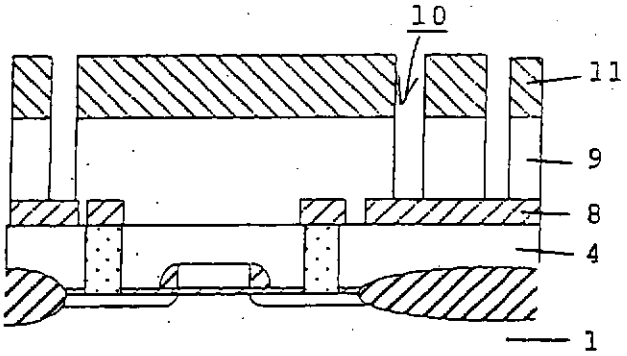


Fig. 1(e)

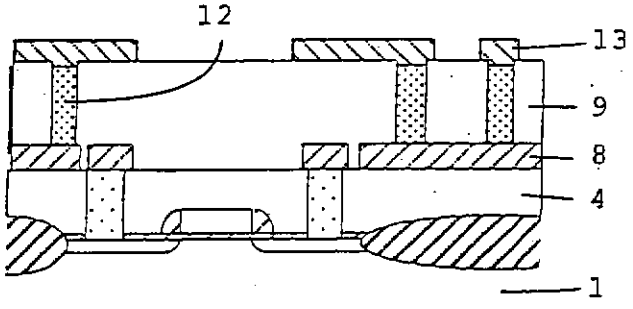


Fig. 2(a)

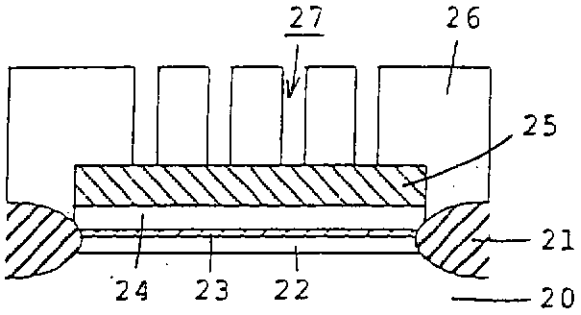


Fig. 2(b)

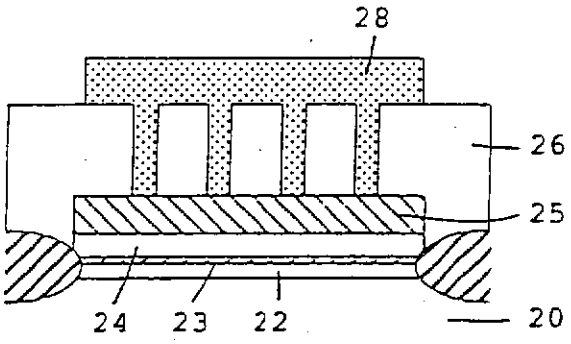


Fig. 3

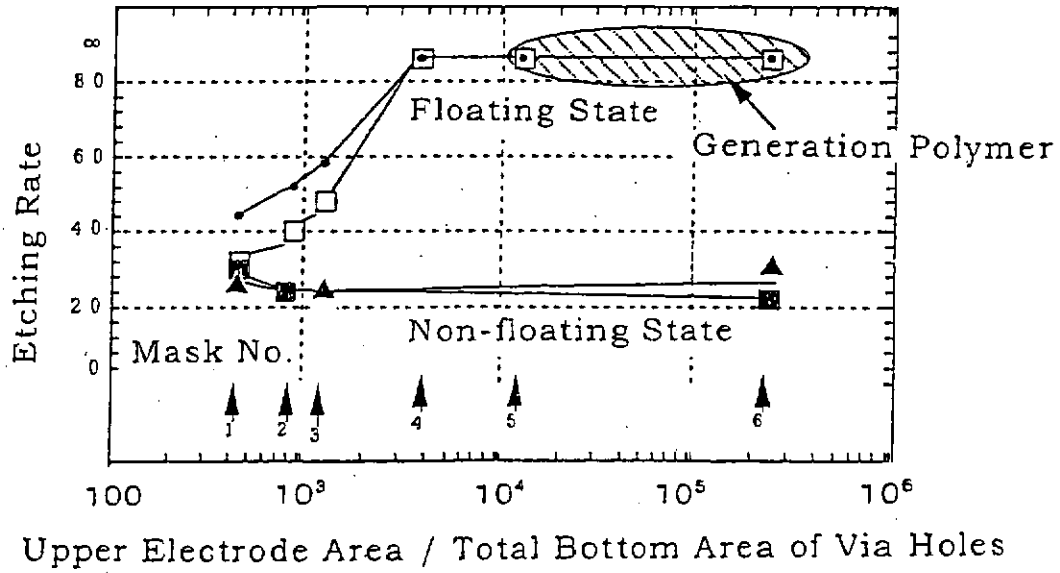


Fig. 4

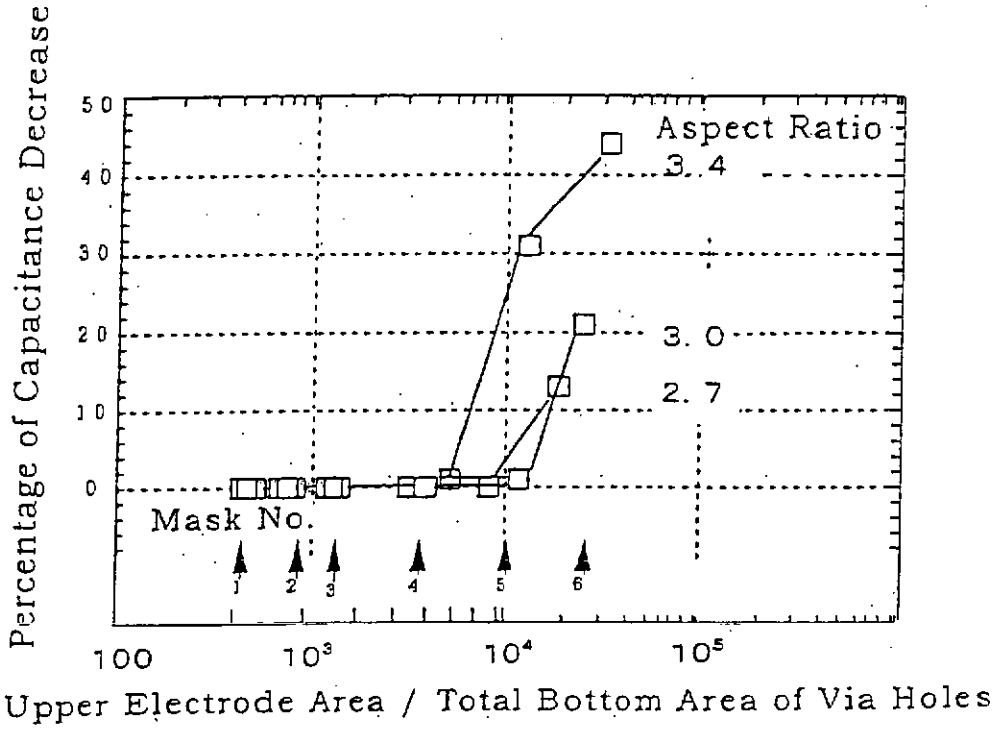
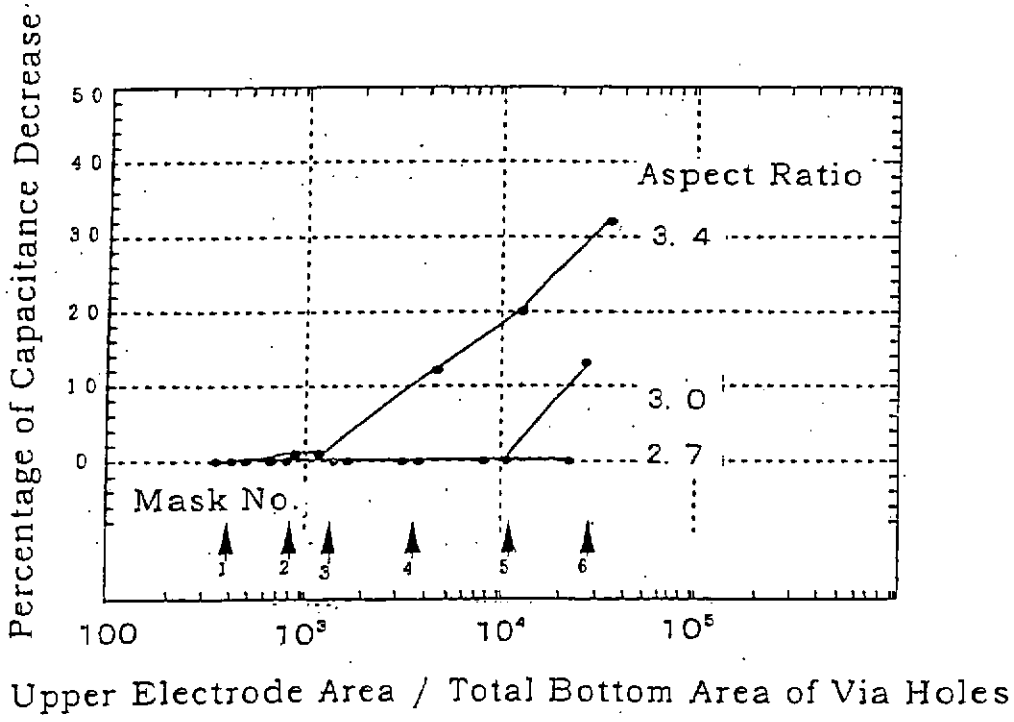

Percentage of Capacitance Decrease
50
40
30
20
10
0
Aspect Ratio
3.4
3.0
2.7
Mask No.
1
2
3
4
5
6
100
10³
10⁴
10⁵
Upper Electrode Area / Total Bottom Area of Via Holes

Fig. 5


Percentage of Capacitance Decrease
50
40
30
20
10
0
Aspect Ratio
3.4
3.0
2.7
Mask No.
1
2
3
4
5
6
100
10³
10⁴
10⁵
Upper Electrode Area / Total Bottom Area of Via Holes