

1 1
 2 1 2-2
 3 1 3-3
 4 1 가
 5 1
 6a 2 , 6b 6A-6A , 6b 6a 6
 B-6B
 7 6
 8a 3 , 8b 8A-8A , 8b 8a 8
 B-8B
 9 8 가
 10a 4 , 10b 10A-10A , 10b
 10a 10B-10B
 11 10 가
 ()
 1:
 3:
 5a, 5b:
 6, 7:

, NTC 가 B () PTC NTC
 , NTC 가 B () 가 B
 , 64-1206 가 B
 , 가 B
 , B
 , (" ")
 , B
 , 가 가 가
 , " " " " " 1

NTC B (NTC) 가 가

$$(1): B = \frac{\log(R/R_0)}{(1/T) - (1/T_0)} \quad (K)$$

R R₀ () R/R₀ 가

가 " " 가 "

가 가 가

1 1 (3) 2 1

(1) (5b) (1) (2) (5a)

(5b) 1 (5a) (1) (3) (1)

2 (5a) 가 1 (6) 2 (7) (3)

2 (5b) 가 2 (7) (3)

가 (5a, 5b) (3) (6, 7)

5 (1) (1) (3)

(8) (9) (5a)

2 (5b) (10) 1 2 (5a)

b) (9) (10) (5a, 5b)

(6, 7) 가 (5a, 5b)

Mn, Ni Co 52:12:32(wt%)

가 PdO Pd

10:0 50:50 Pd Ag 70:30

(3) (5a, 5b) (6, 7) (6, 7) Ag (Ni-Sn)

, Ni-Sn-Sn/Pb (-Ag- , Ag-) 가

1 4

1 NTC (300 100) 1 NTC
 B 가 2mm, 1.20mm 가 0.9mm, 0.8mm
 Mn, Ni, Co, Cu, Al Fe Ag, Ag-Pd, Pt Pb PdO,
 Pd, Lu₂O₃, SiC 가 2mm, 0.8mm, 가 0.001 0.1mm (3
)

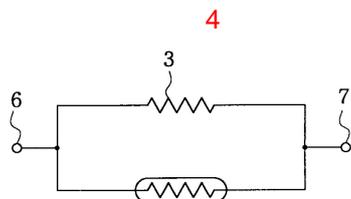
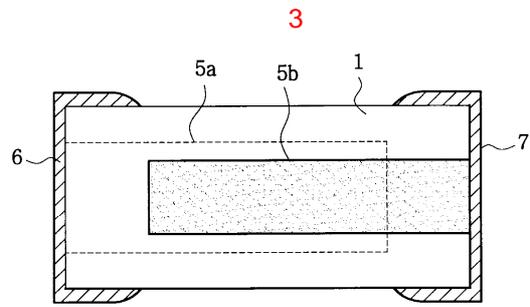
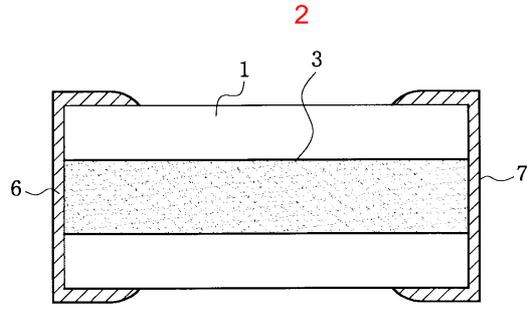
[1]

PdO Pd:PdO		(); Pd:P dO	NTC ()	NTC B (K)	25 ()	50 ()	B 25/50(K) b
0:100	1	1000	300	3450	230.77	109.61	2869
25:75	1	500	300	3450	187.50	98.78	2470
25:75	1	250	300	3450	136.36	82.49	1937
40:60	1	125	300	3450	88.24	62.02	1359
0:100	1	1000	100	3450	90.91	39.42	3220
25:75	1	500	100	3450	83.33	37.92	3034
25:75	2	250	100	3450	71.43	35.25	2722
40:60	1	125	100	3450	55.56	30.89	2262
40:60	2	62.5	100	3450	38.46	24.77	1696

[2]

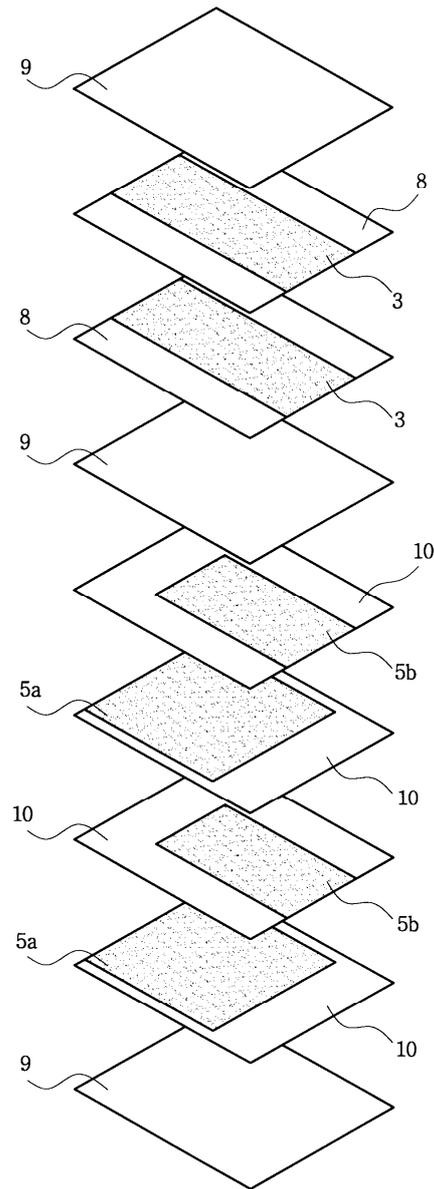
		()
Pd:PdO	0:100	100
Pd:PdO	10:90	700
Pd:PdO	25:75	500
Pd:PdO	40:60	125
Pd:PdO	50:50	10
Pd:PdO	75:25	5
Pd:PdO	90:10	2
Pd:Cu	25:75	2500
Pd:Ni	25:75	
Pd:SiC	25:75	200
Ni	100	30k
Cr	100	150k
SiC	100	1500
Pd:	25:75	700
Pd:	25:75	3000

2 70 %, 23 % 7 %
 가 10 100μm가 1000 1250 1 5 20
 0 PdO , 가 Pd가

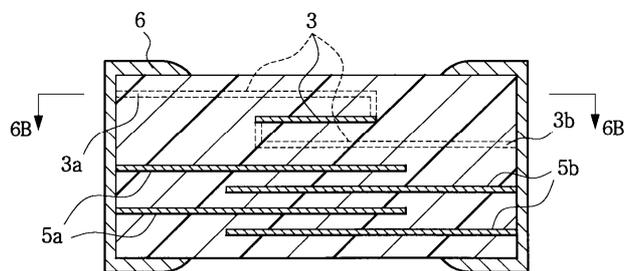


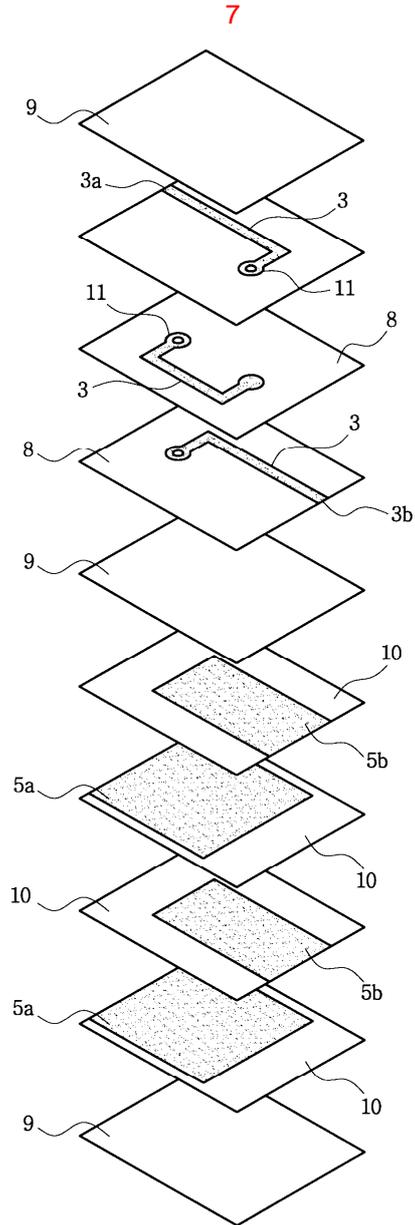
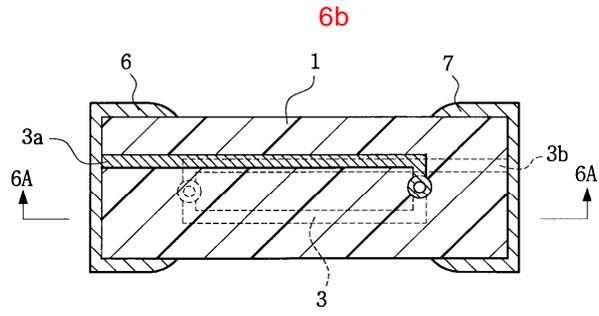
5a 및 5b에 의해 유도된
서미스터 특성

5

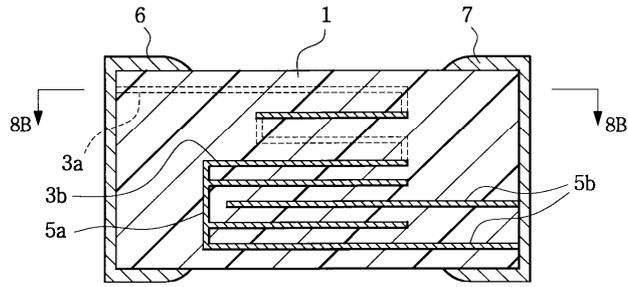


6a

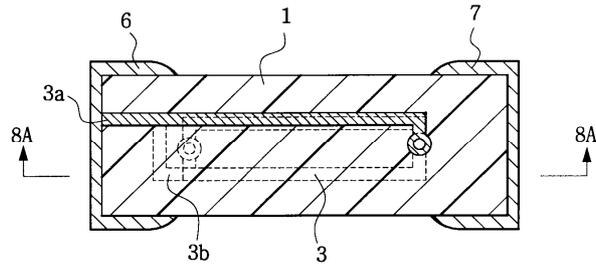




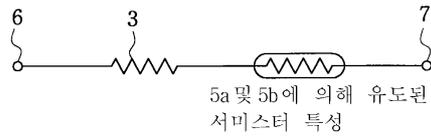
8a



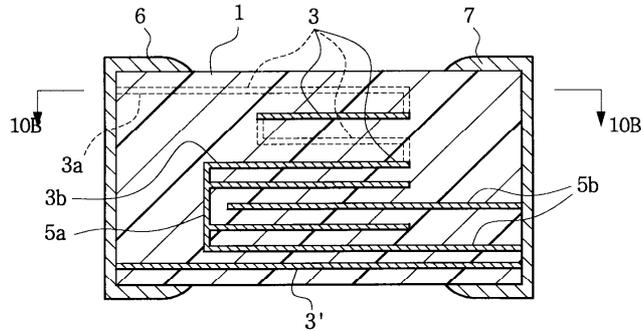
8b



9



10a



10b

