

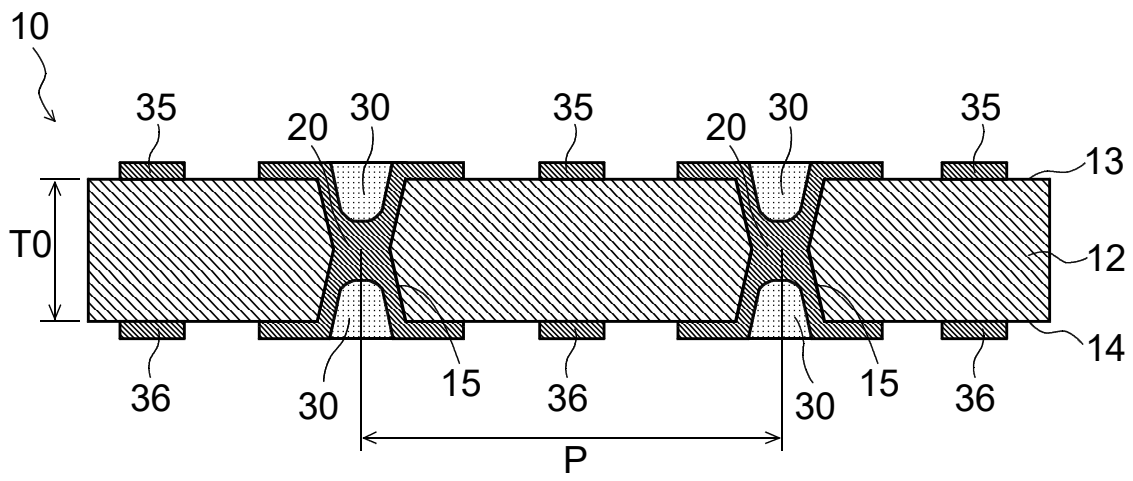


Fig. 1

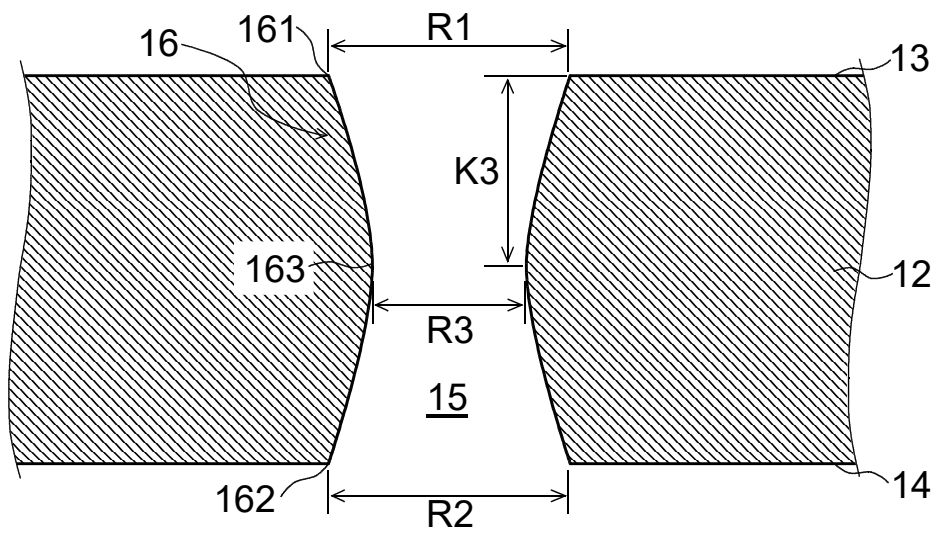


Fig. 2

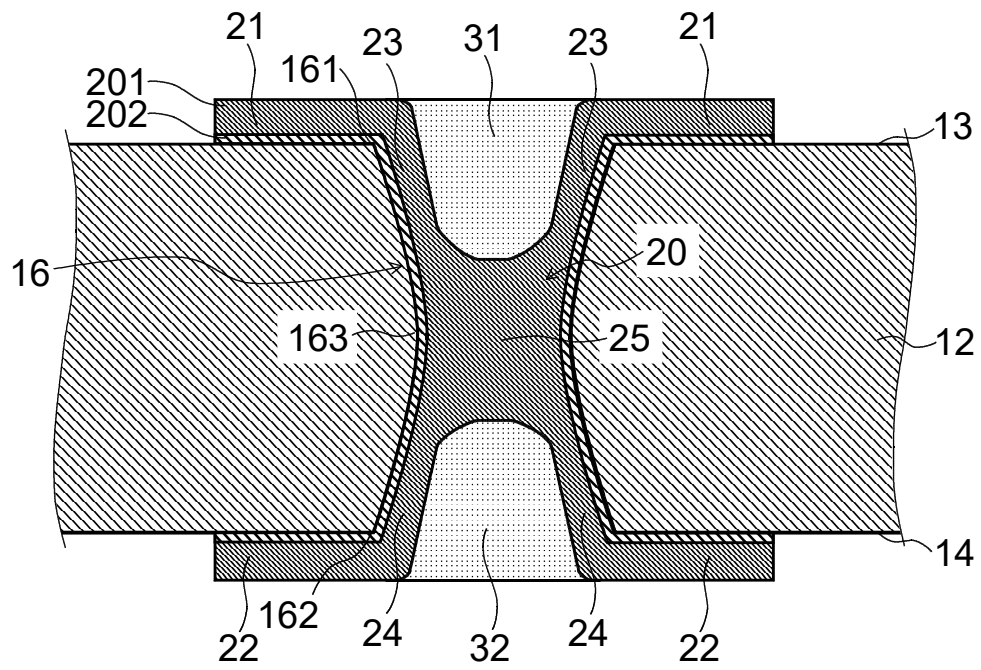


Fig. 3

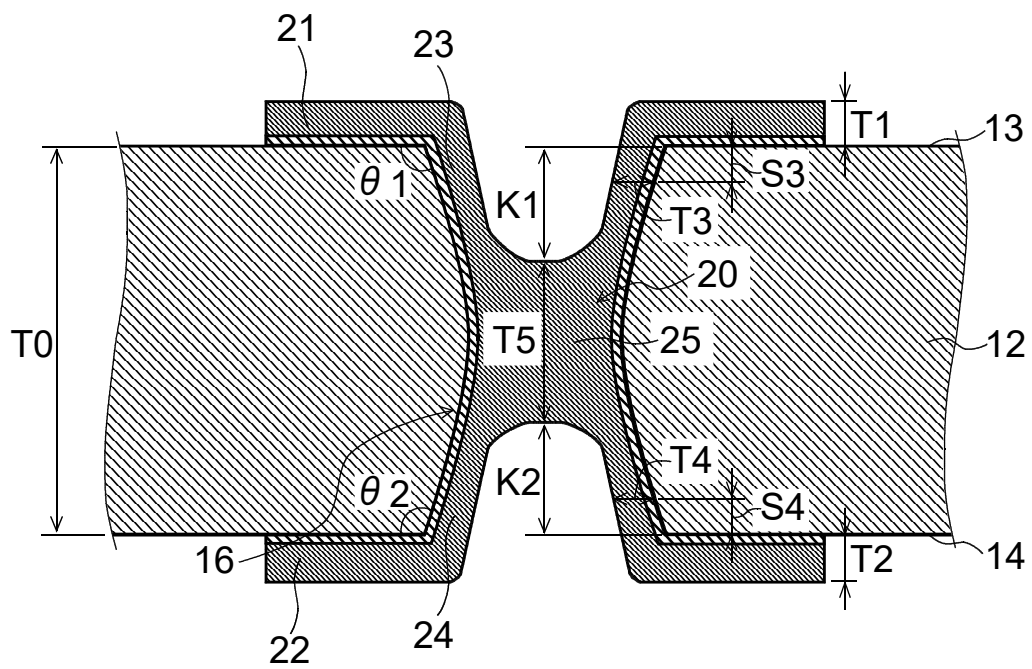


Fig. 4

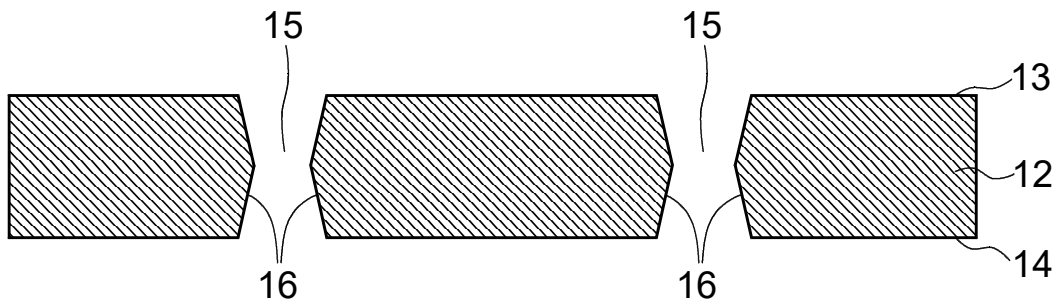


Fig. 5

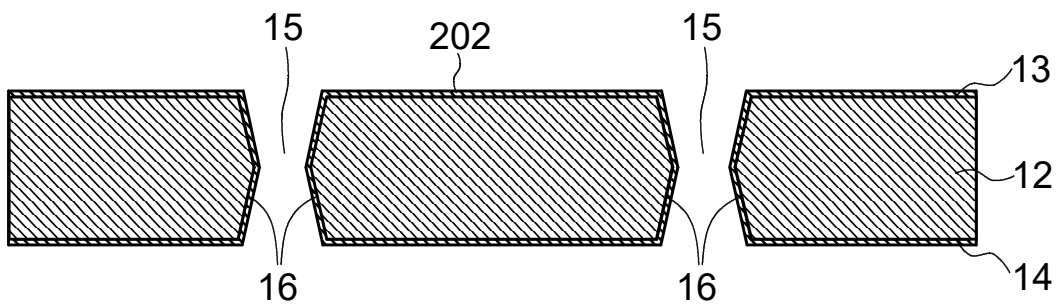


Fig. 6

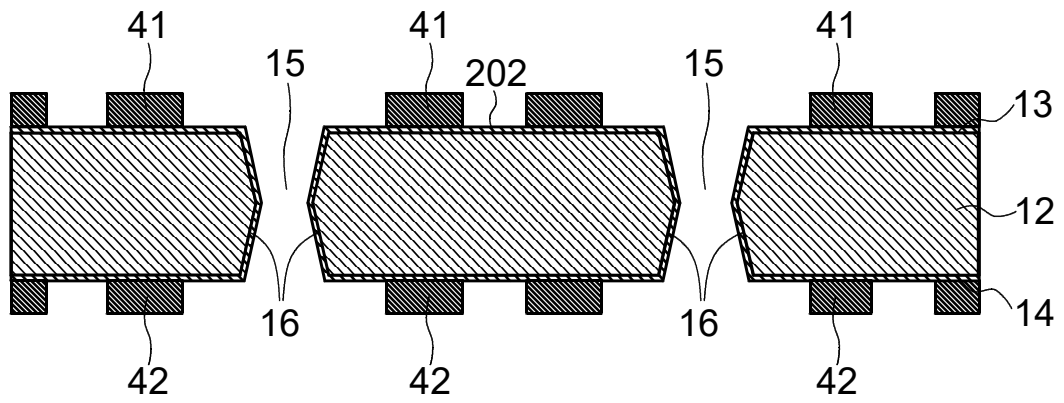


Fig. 7

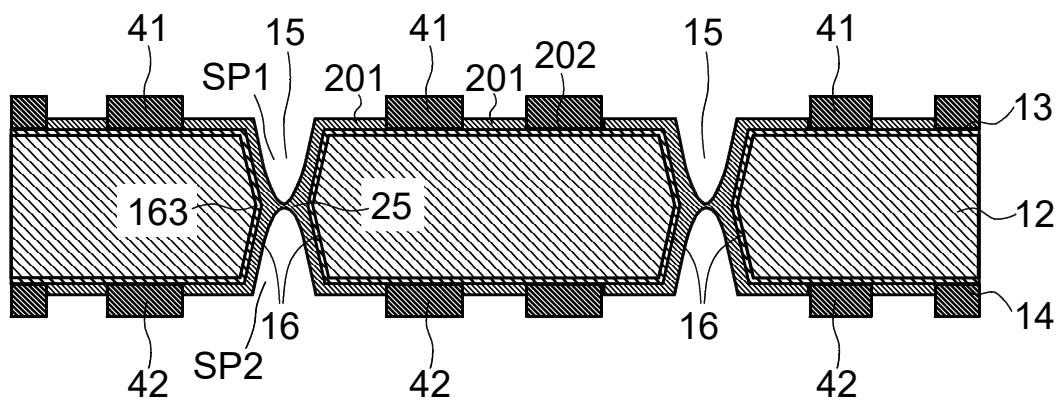


Fig. 8

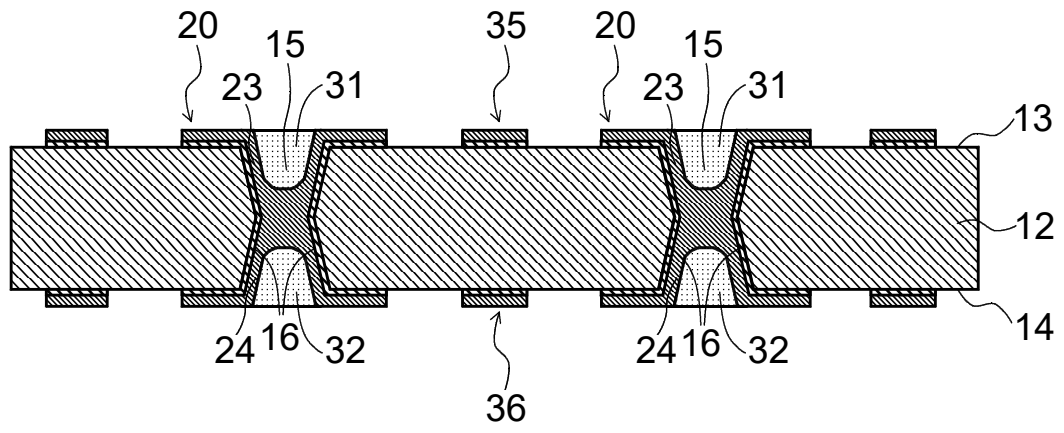


Fig. 11

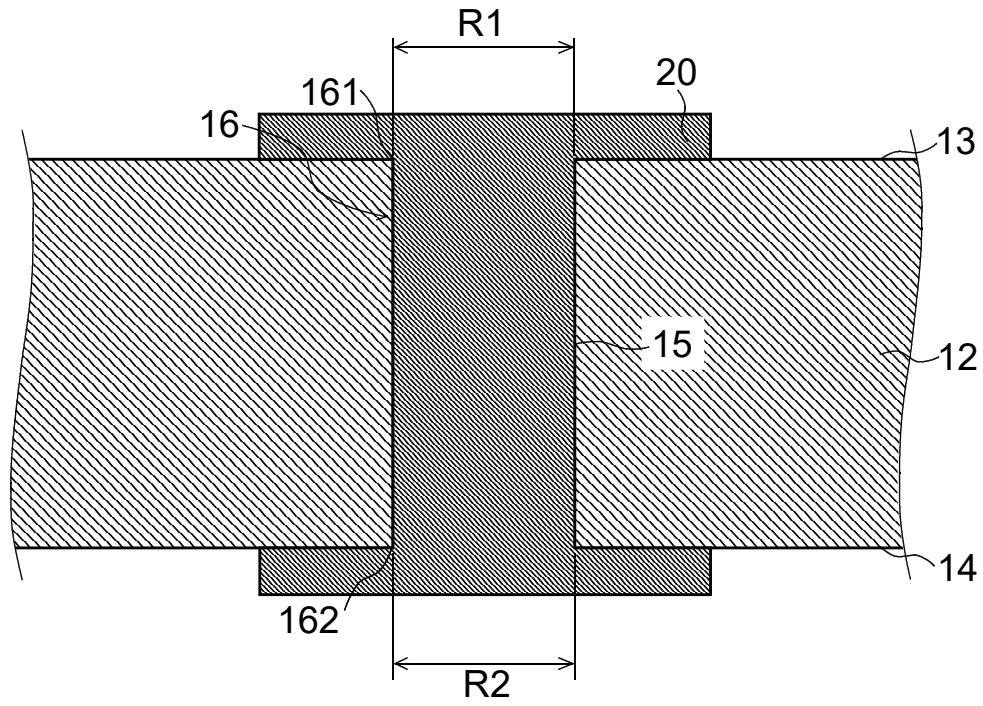


Fig. 12

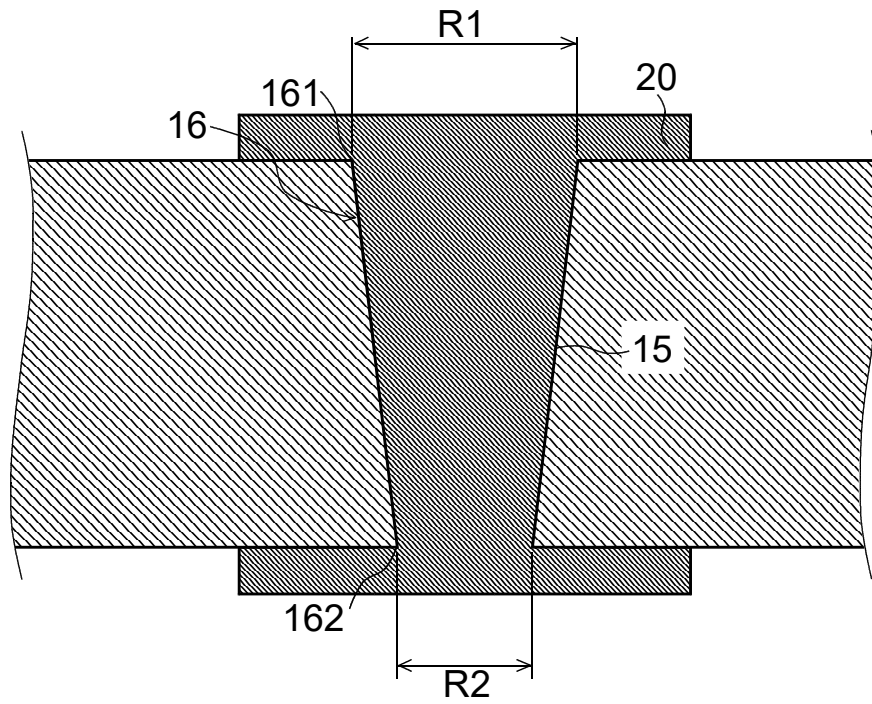


Fig. 13

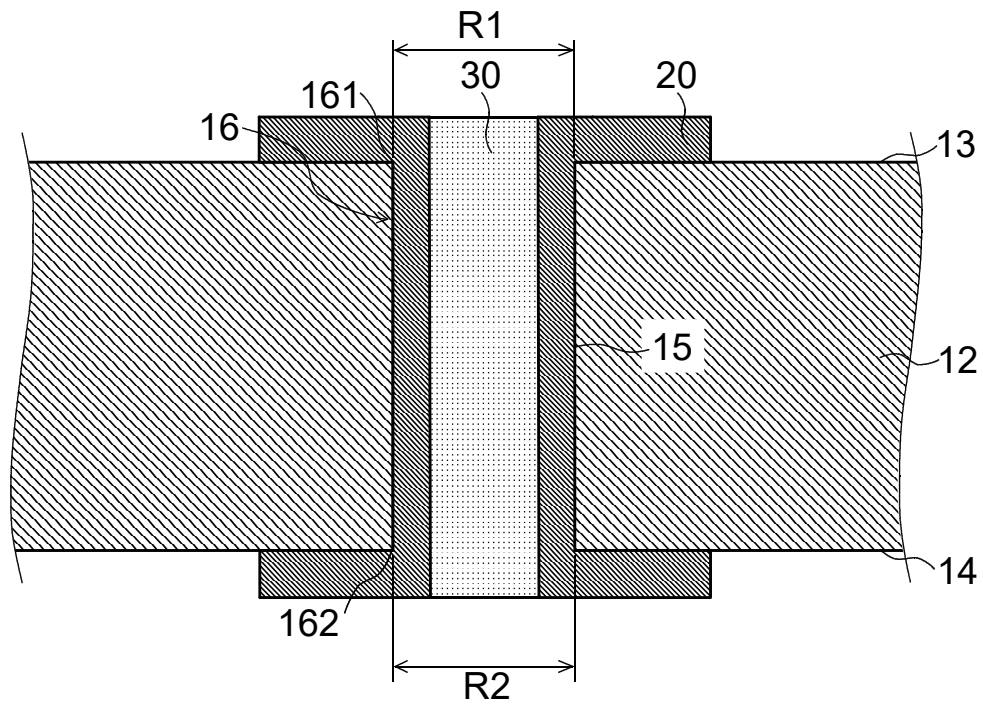


Fig. 14

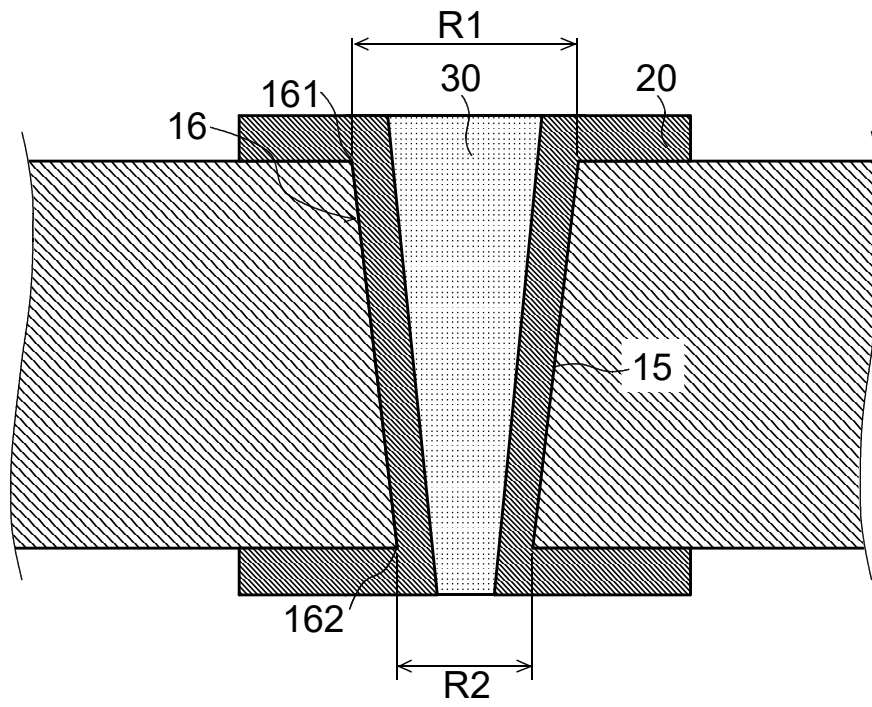


Fig. 15

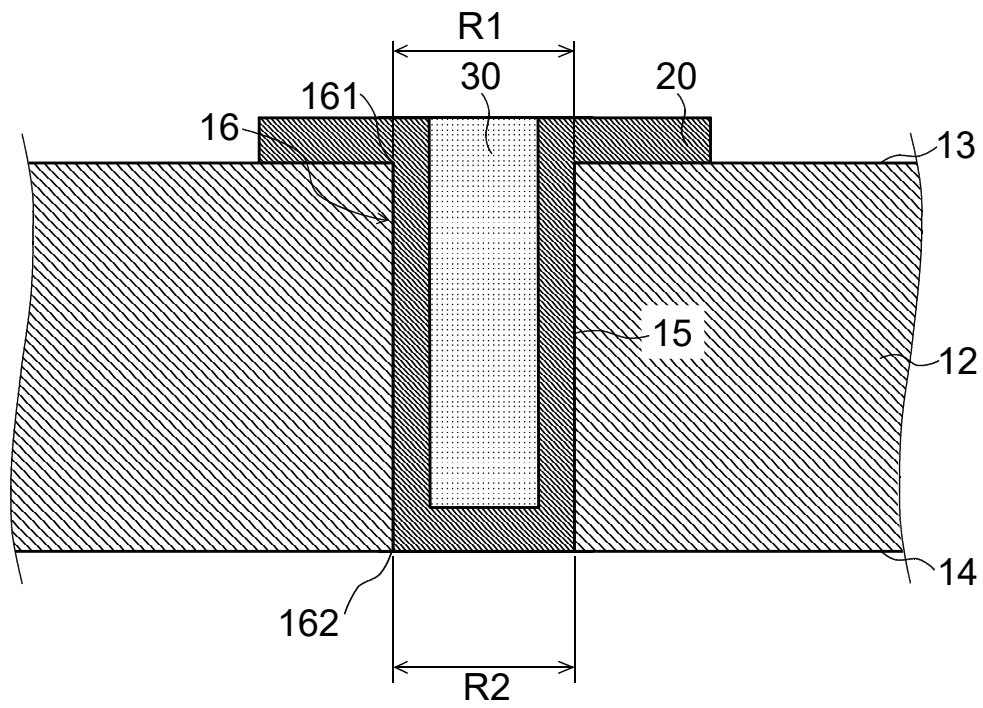


Fig. 16

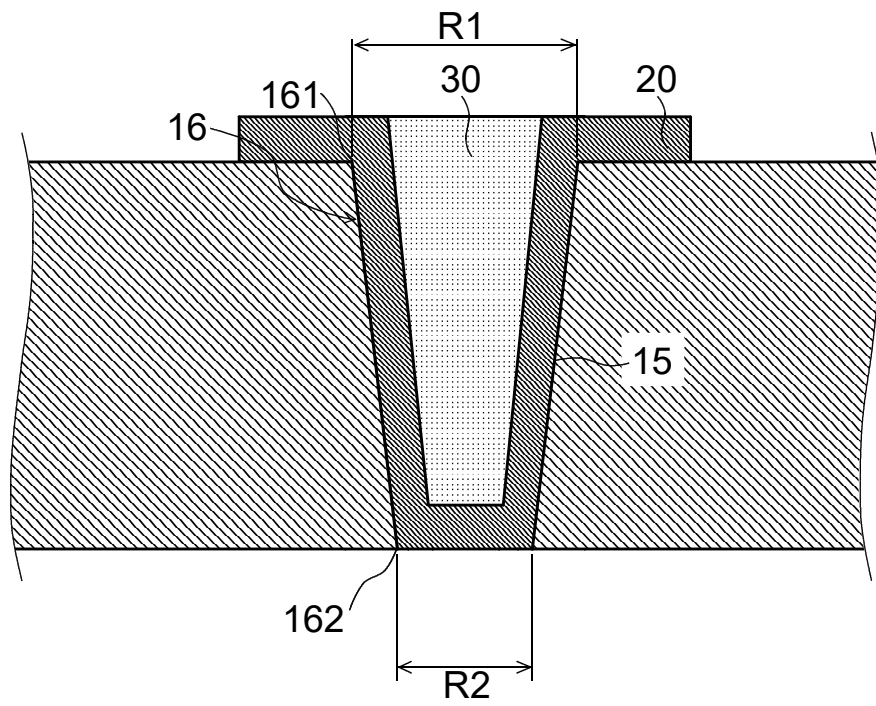


Fig. 17

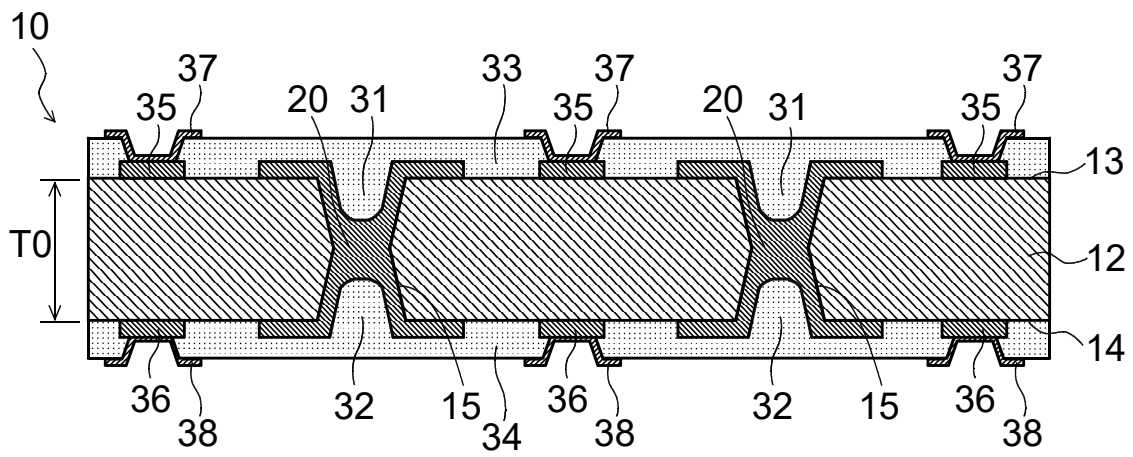
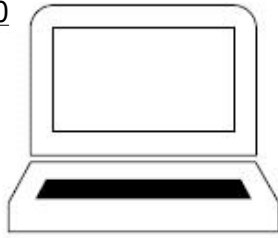
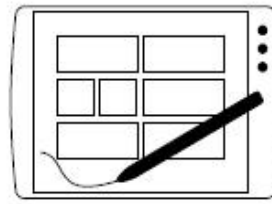


Fig. 18

110



120



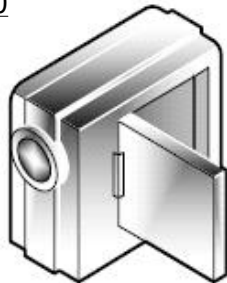
130



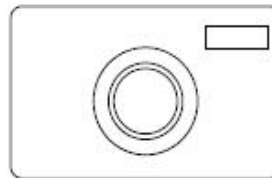
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150



160



170



180

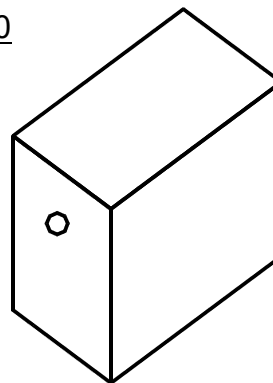


Fig. 19

	First dimension R1 [μm]	Second dimension R2 [μm]	Minimum dimension R3 [μm]	Thickness T5 [μm]	K1/T0	K2/T0	T5/T0	Allowable current [A]	Reliability	Determination
Example 1	150	150	60	100	0.375	0.375	0.25	0.90	good	good
Example 2	150	150	65	100	0.30	0.45	0.25	0.92	good	good
Example 3	120	120	60	100	0.4125	0.3375	0.25	0.84	good	good
Example 4	130	130	60	100	0.30	0.45	0.25	0.86	good	good
Example 5	140	140	60	100	0.375	0.375	0.25	0.88	good	good
Example 6	160	160	60	100	0.30	0.45	0.25	0.92	good	good
Example 7	170	170	60	100	0.30	0.45	0.25	0.94	good	good
Example 8	180	180	60	100	0.30	0.45	0.25	0.96	good	good
Example 9	150	150	60	120	0.315	0.385	0.30	0.94	good	good
Example 10	150	150	60	140	0.325	0.325	0.35	0.96	good	good
Example 11	150	150	60	160	0.30	0.30	0.40	0.98	good	good
Example 12	150	150	60	80	0.32	0.48	0.20	0.86	good	good

Fig. 20

	First dimension R1 [μm]	Second dimension R2 [μm]	Minimum dimension R3 [μm]	Thickness T5 [μm]	K1/T0	K2/T0	T5/T0	Allowable current [A]	Reliability	Determination
Comparative example 1	150	150	55	100	0.30	0.45	0.25	0.78	good	NG
Comparative example 2	150	150	70	0	0.40	0.60	0.00	0.78	good	NG
Comparative example 3	100	100	60	100	0.30	0.45	0.25	0.78	good	NG
Comparative example 4	90	90	60	100	0.30	0.45	0.25	0.76	good	NG
Comparative example 5	60	60	60	400	0.00	0.00	1.00	0.34	good	NG
Comparative example 6	150	150	60	70	0.33	0.495	0.18	0.78	good	NG
Comparative example 7	150	150	60	60	0.34	0.51	0.15	0.76	good	NG
Comparative example 8	150	150	60	170	0.2875	0.2875	0.43	1.00	NG	NG
Comparative example 9	150	150	60	180	0.22	0.33	0.45	1.05	NG	NG

Fig. 21

	R1 [μm]	R2 [μm]	R3 [μm]	T3 [μm]	T5 [μm]	K1/T0	K2/T0	T5/T0	R3/T3	Allowable current [A]	Reliability	Determina tion
Example 13	150	150	60	30	100	0.375	0.375	0.25	2.00	0.90	good	good
Example 14	150	150	65	30	90	0.388	0.388	0.23	2.17	0.89	good	good
Example 15	150	150	60	20	80	0.40	0.40	0.20	3.00	0.84	good	good
Example 16	150	150	60	25	88	0.39	0.39	0.22	2.40	0.86	good	good
Example 17	150	150	60	40	120	0.35	0.35	0.30	1.50	0.94	good	good

Fig. 22

	R1 [μm]	R2 [μm]	R3 [μm]	T3 [μm]	T5 [μm]	K1/T0	K2/T0	T5/T0	R3/T3	Allowable current [A]	Reliability	Determina tion
Comparative example 10	150	150	60	15	0	0.50	0.50	0.00	4.00	0.64	good	NG
Comparative example 11	150	150	80	20	0	0.50	0.50	0.00	4.00	0.68	good	NG
Comparative example 12	150	150	60	60	300	0.125	0.125	0.75	1.00	0.94	NG	NG

Fig. 23

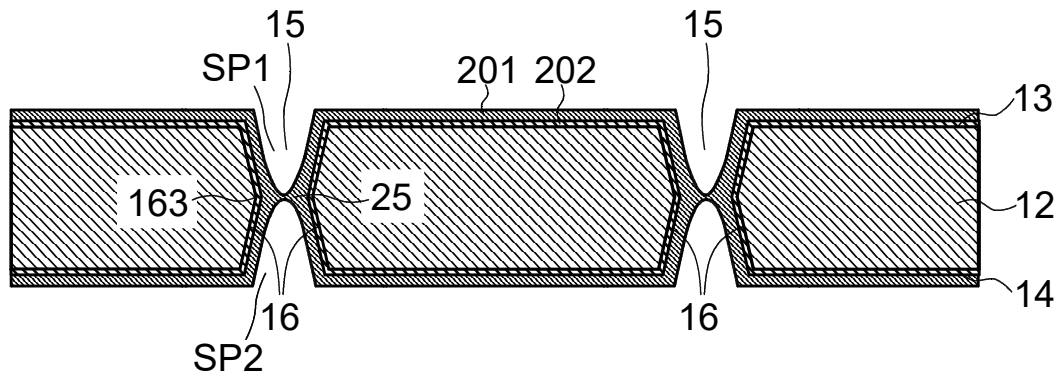


Fig. 25

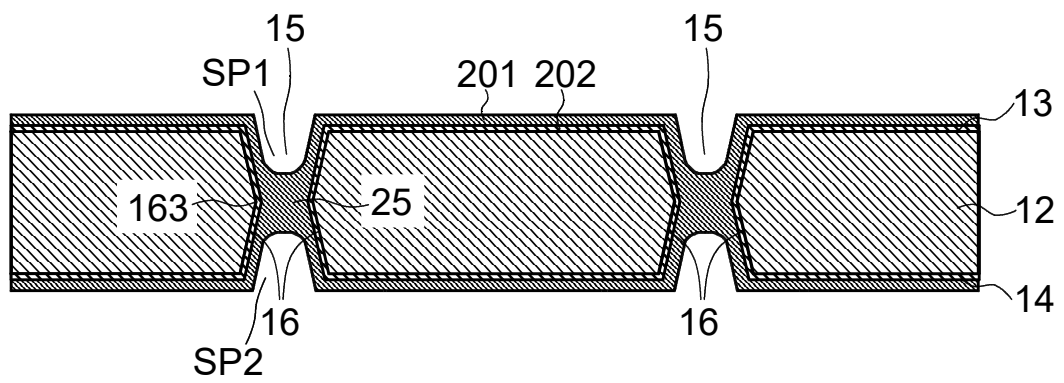


Fig. 26

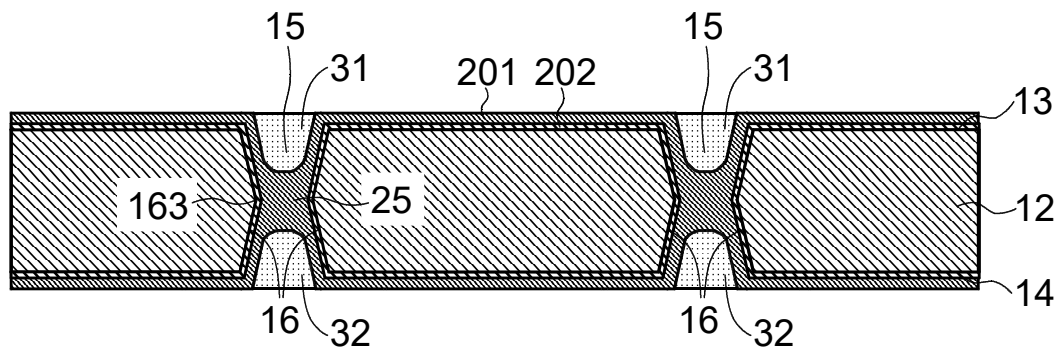


Fig. 27

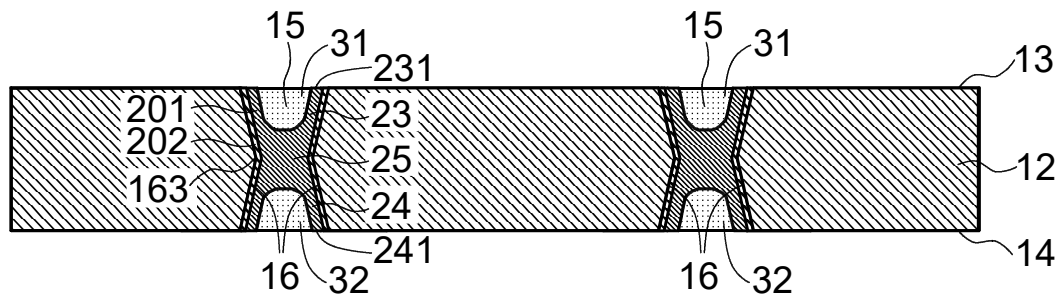


Fig. 28

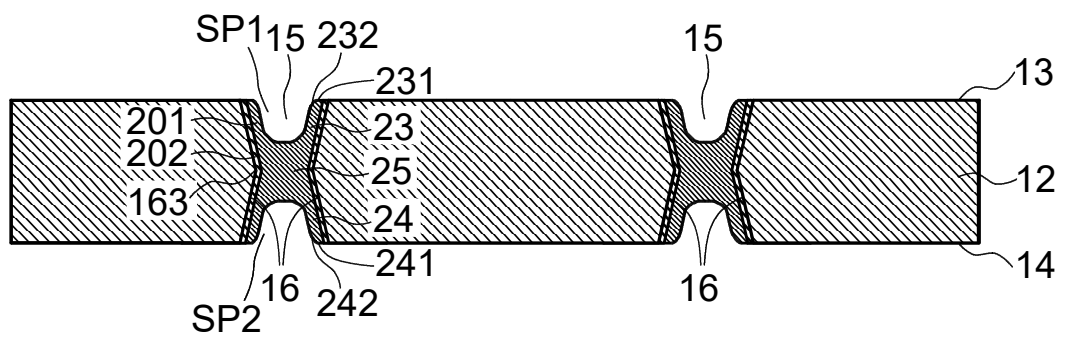


Fig. 30

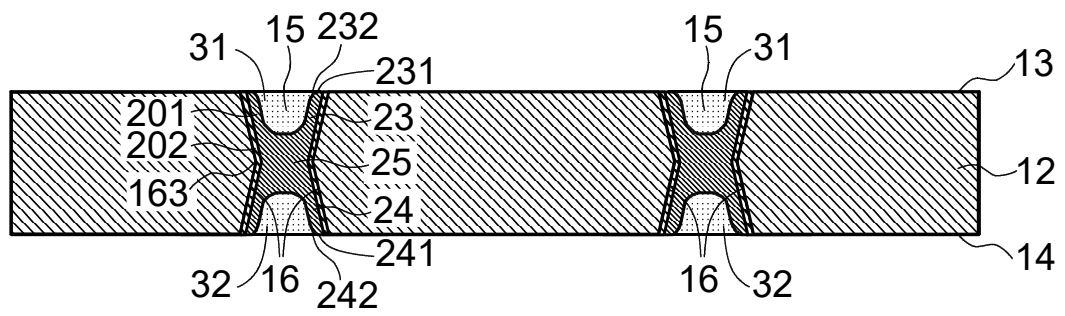


Fig. 31

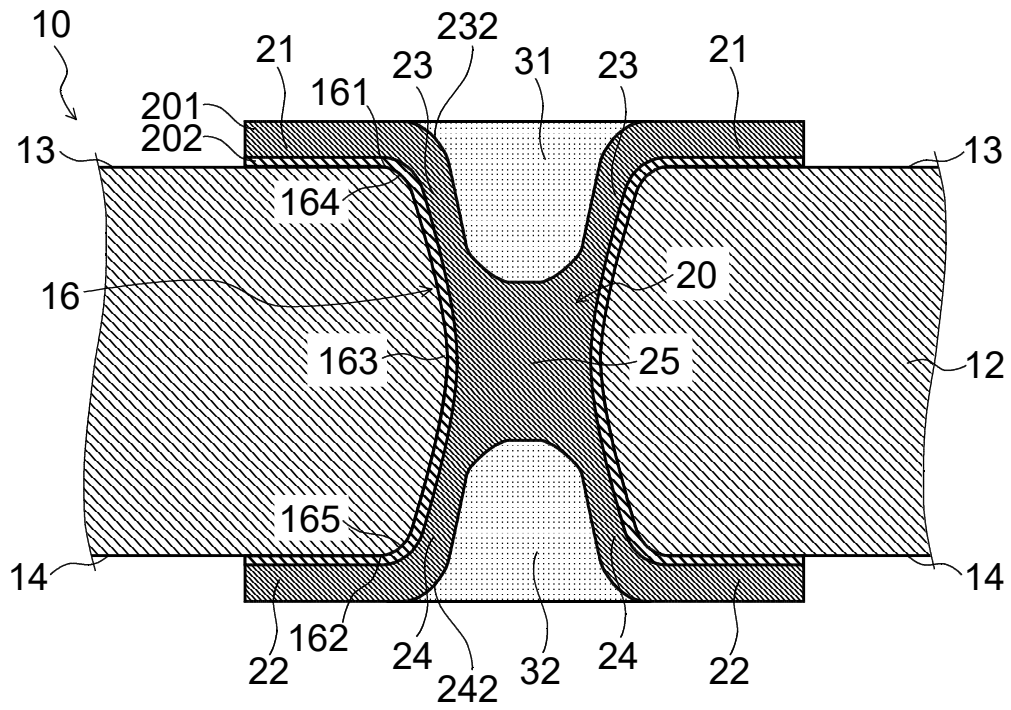


Fig. 32

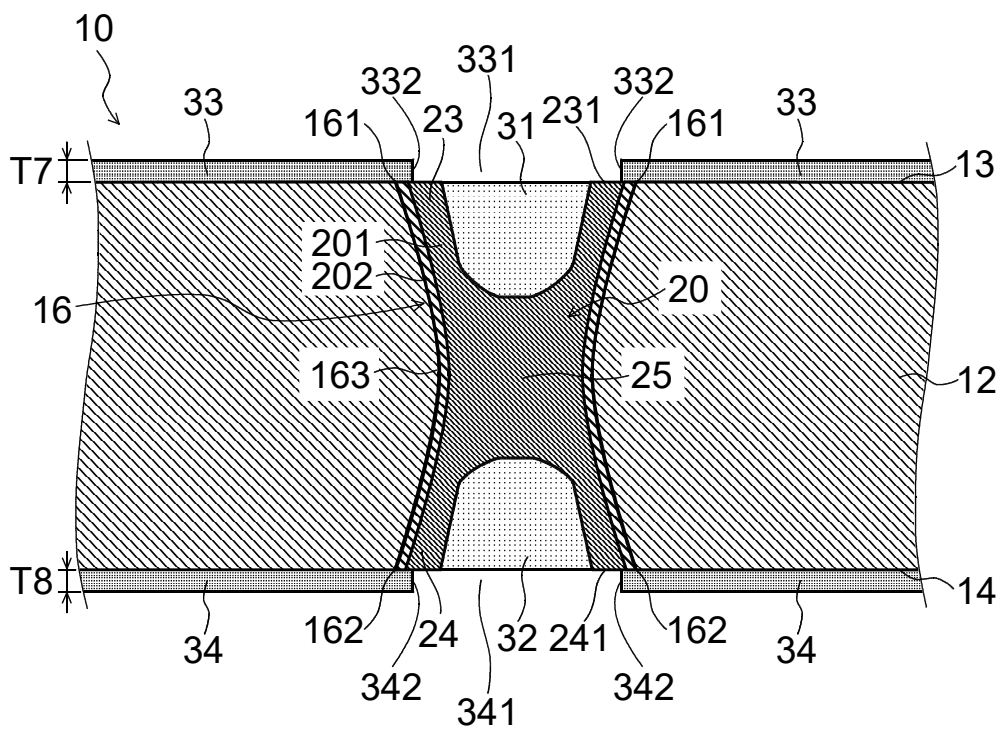


Fig. 33

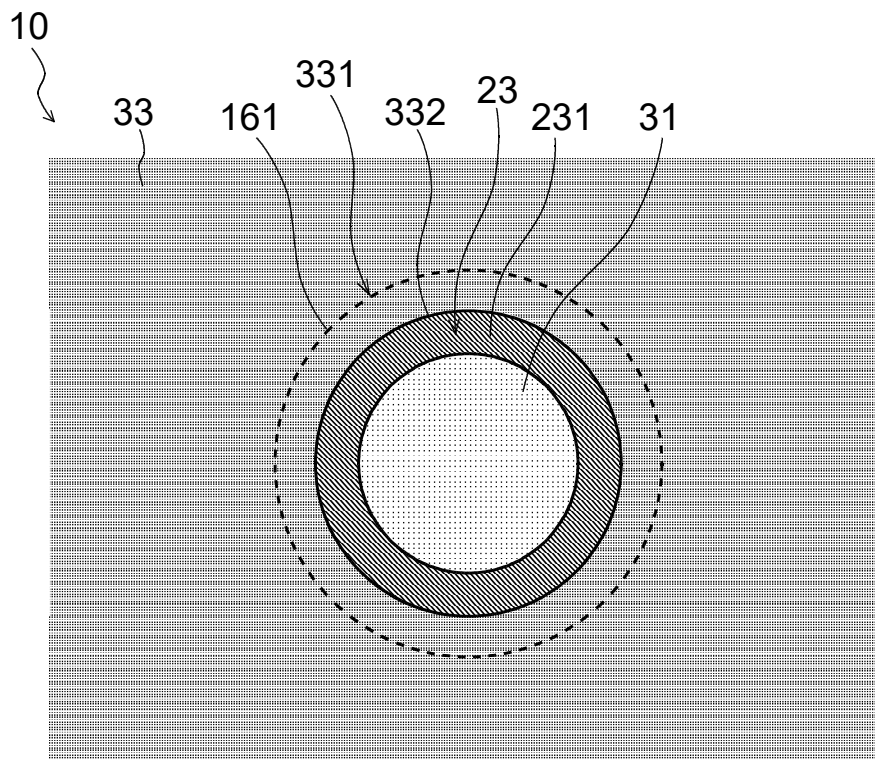


Fig. 34

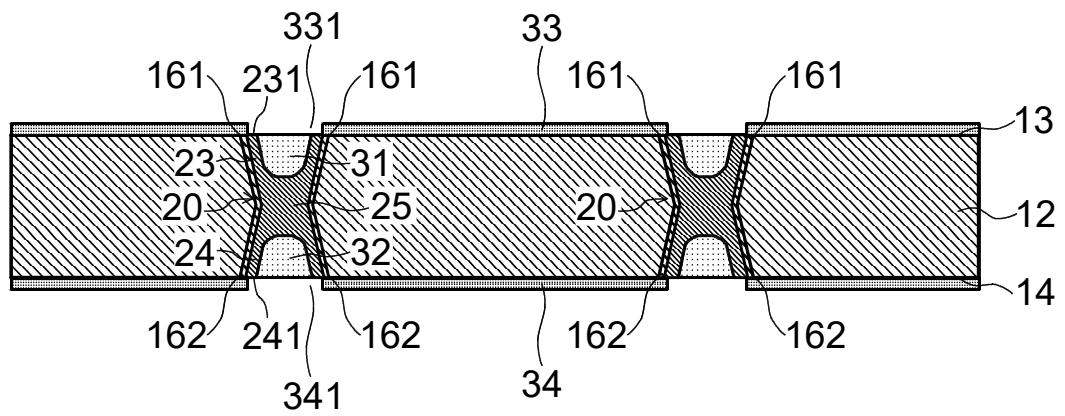


Fig. 36

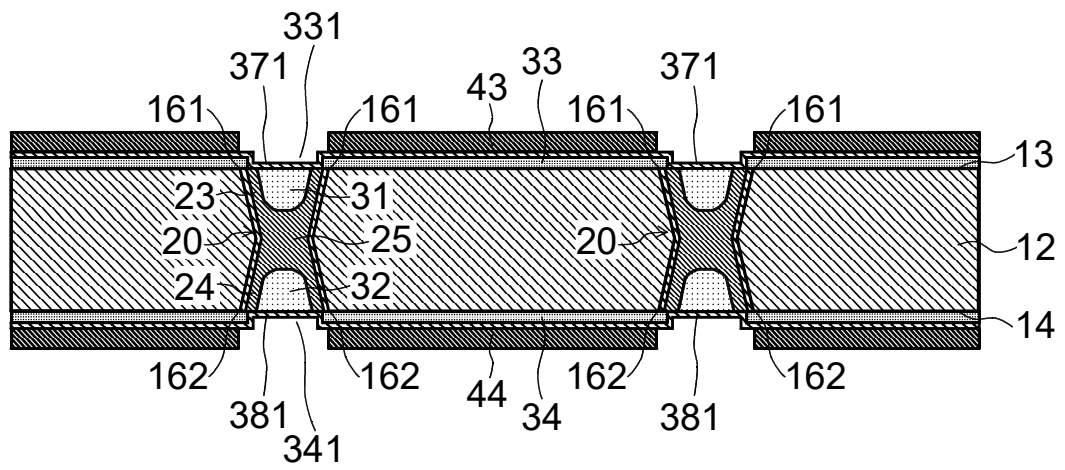


Fig. 37

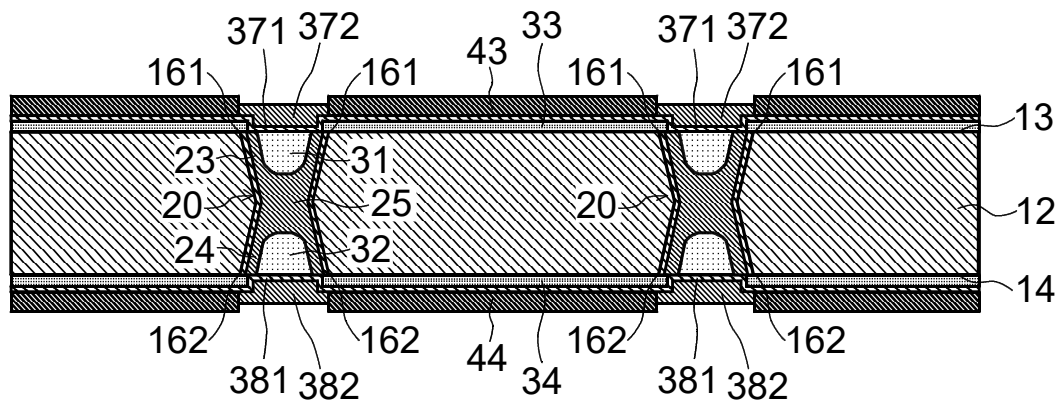


Fig. 38

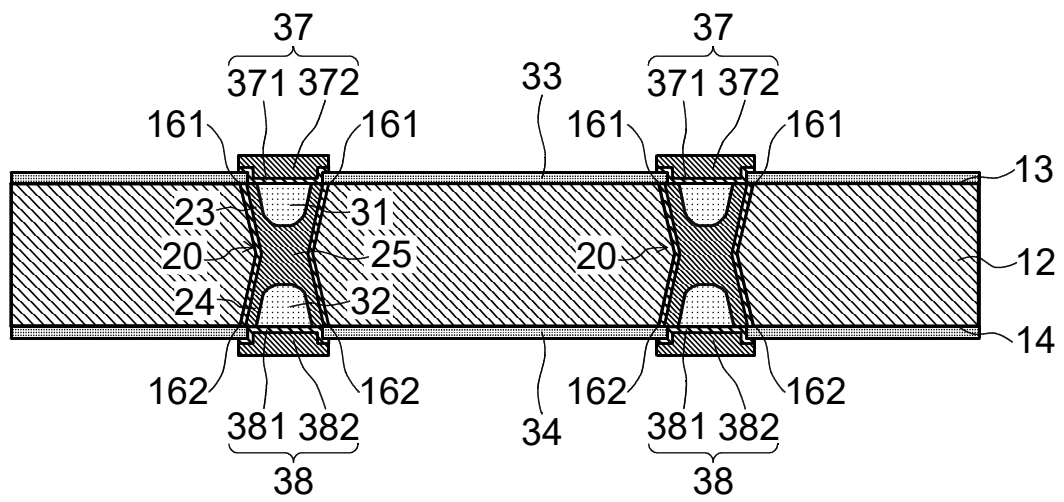


Fig. 39