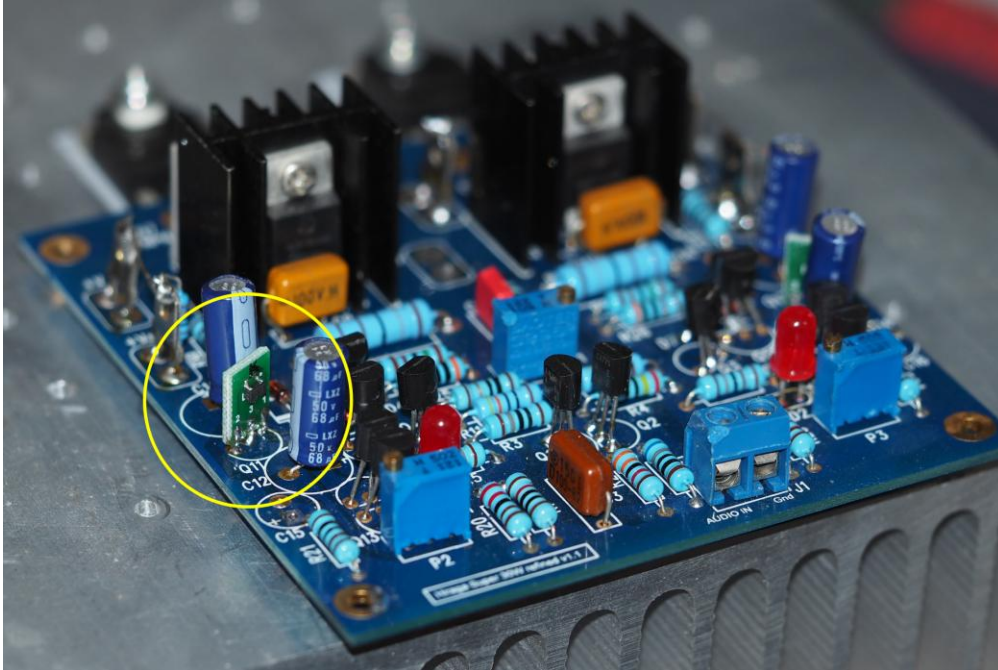
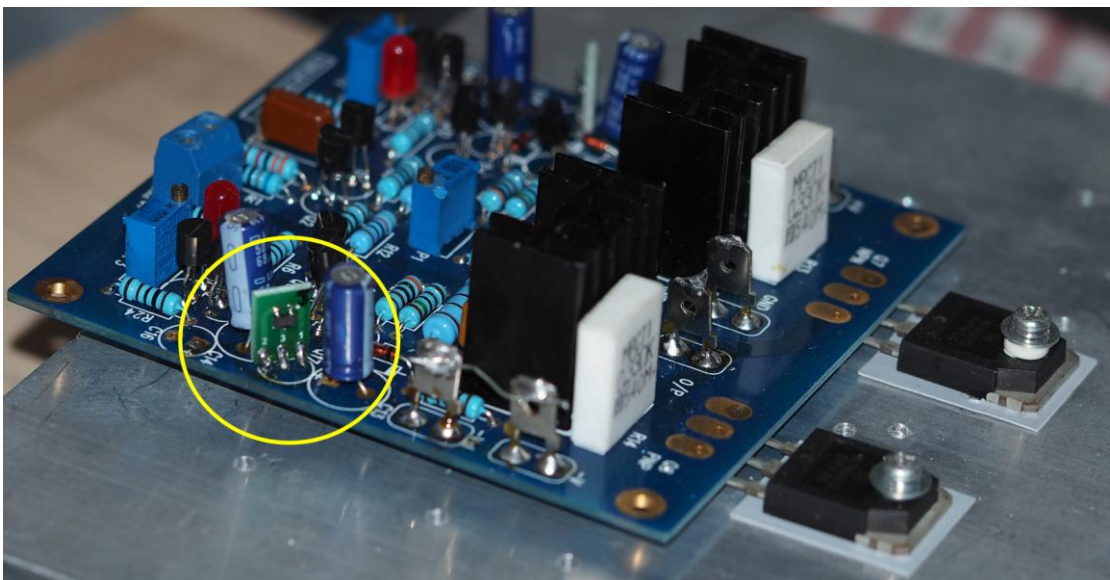


## Hiraga 30W + Kubota regulator kit construction guide

1. Install and solder all the components.
2. Orientation of Q11



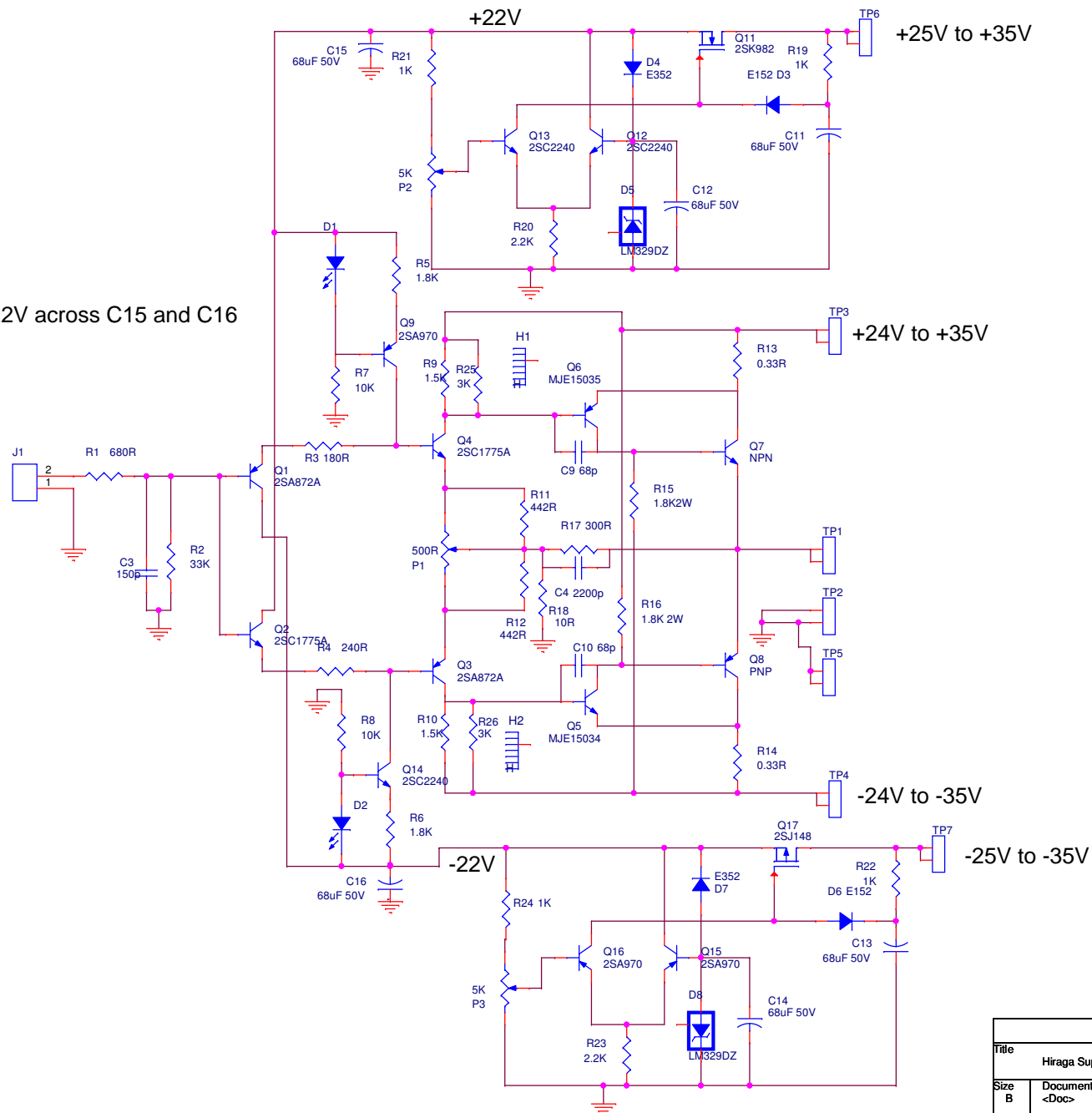
3. Orientation of Q17



4. Connect +/-25V to +/-35V to +Vsl and -Vsl respectively. It is highly recommended to use a current controlled regulator power supply for the first time of power up.

5. Adjust P2 and P3 so that the voltage across the two poles of C15 and C16 to be +22V and -22V respectively.
6. Adjustment of small signal section power supply is completed. Next stage is the whole power amplifier power up.
7. Use a bare copper wire to connect +V to +Vsl , and another bare copper wire to connect -V to -Vsl.
8. Connect a +/-25V to +/-35V to +V and -V respectively. It is highly recommended to use a current controlled power supply for the first time of power up.
9. Without connecting to a resistive load of a speaker, measure the DC voltage at O/P to GND. Adjust P1 until a minimum is obtained. Normally less than 5mV can be achieved.
10. Adjustment is completed.

Adjust P2 and P3 to get +22V and -22V across C15 and C16 respectively



PAD8 PAD9  
PAD10 PAD11

Title		
Hiraga Super 30W		
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## Hiraga 30W class A refined part list

Item	Quantity	Reference	Part
1	1	C3	150p
2	1	C4	2200p
3	2	C9,C10	68p
4	6	C11,C12,C13,C14,C15	68uF 50V
5	2	D1,D2	3mm green LED
6	2	D3,D6	E152
7	2	D4,D7	E352
8	2	D5,D8	LM329DZ
9	1	J1	2 pin terminal block
11	1	P1	500R multiturn
12	2	P2,P3	5K multiturn
13	2	Q1,Q3	2SA872A
14	2	Q2,Q4	2SC1775A
15	1	Q5	MJE15034
16	1	Q6	MJE15035
17	1	Q7	NPN power transistor
18	1	Q8	PNP power transistor
19	3	Q9,Q15,Q16	2SA970
20	1	Q11	2SK982/2SK1062
21	3	Q12,Q13,Q14	2SC2240
22	1	Q17	2SJ148/2SJ168
23	1	R1	680R
24	1	R2	33K
25	1	R3	180R
26	1	R4	240R
27	2	R5,R6	1.8K
28	2	R7,R8	10K
29	2	R9,R10	1.5K
30	2	R11,R12	442R
31	2	R13,R14	0.33R
32	1	R15	1.8K2W
33	1	R16	1.8K 2W
34	1	R17	300R
35	1	R18	10R
36	4	R19,R21,R22,R24	1K
37	2	R20,R23	2.2K
38	2	R25,R26	3K
Note : all the resistors are 1/4W or 1/2W except R15 and R16			