power_amp_30w_a (750x619x2 gif)

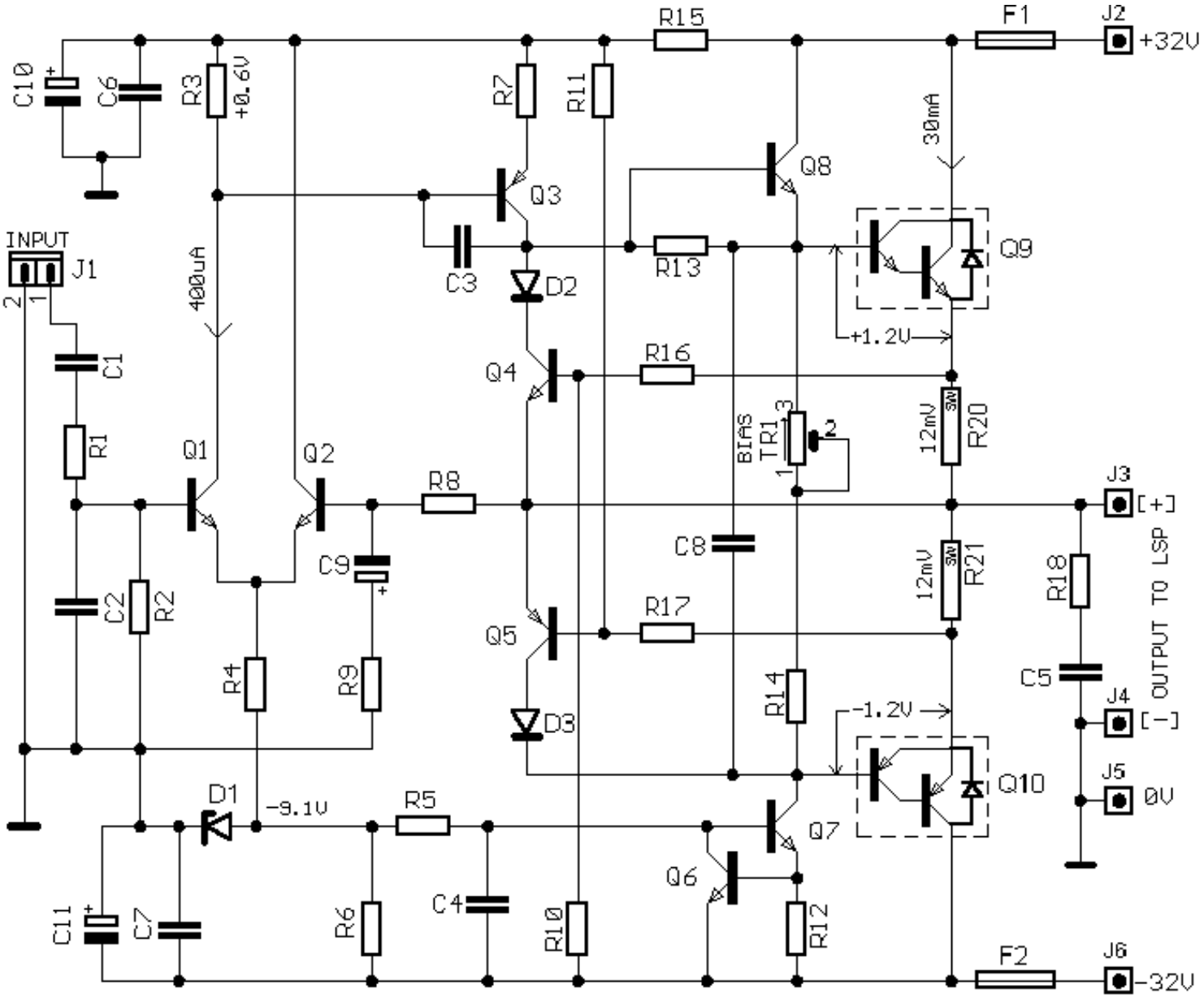
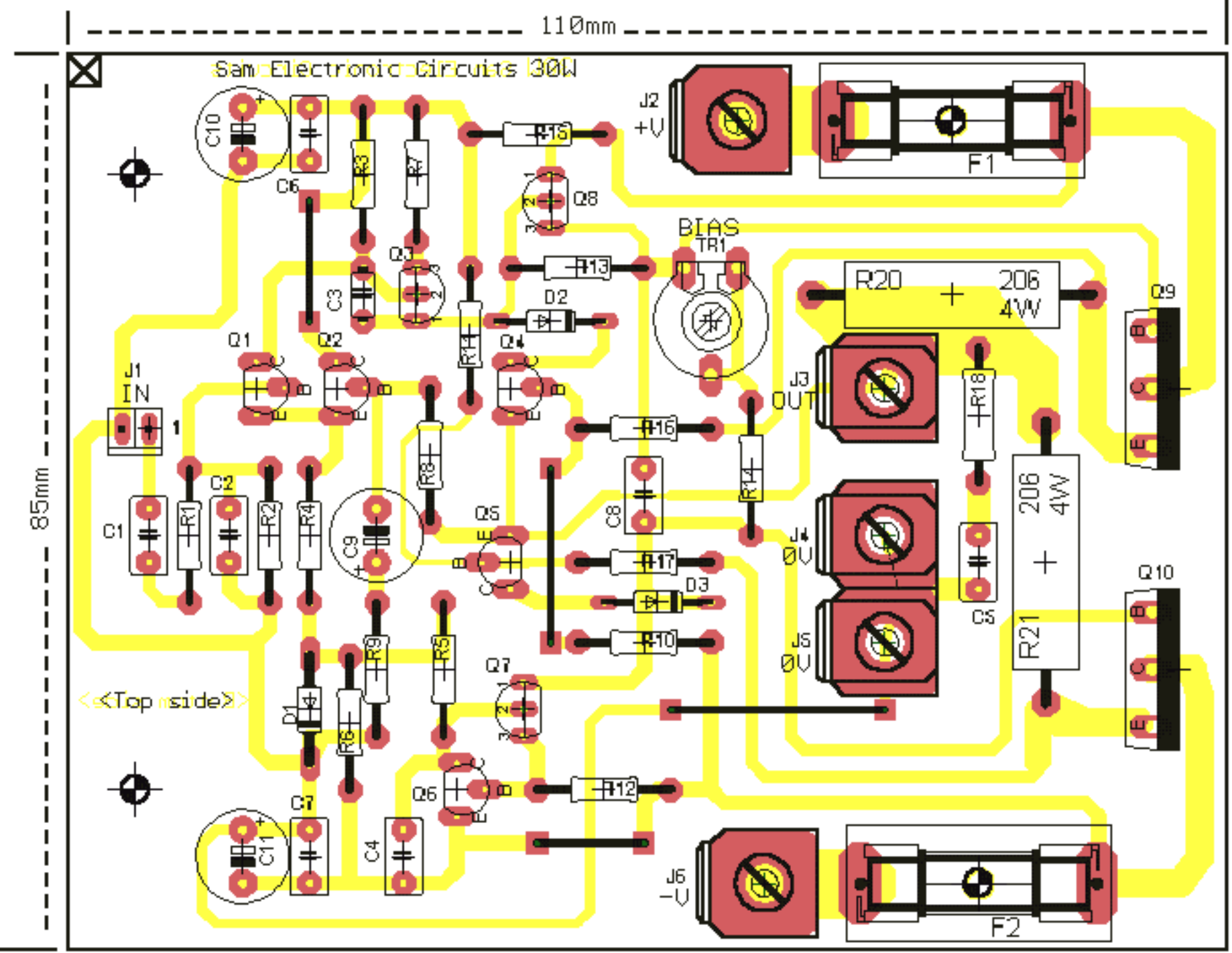
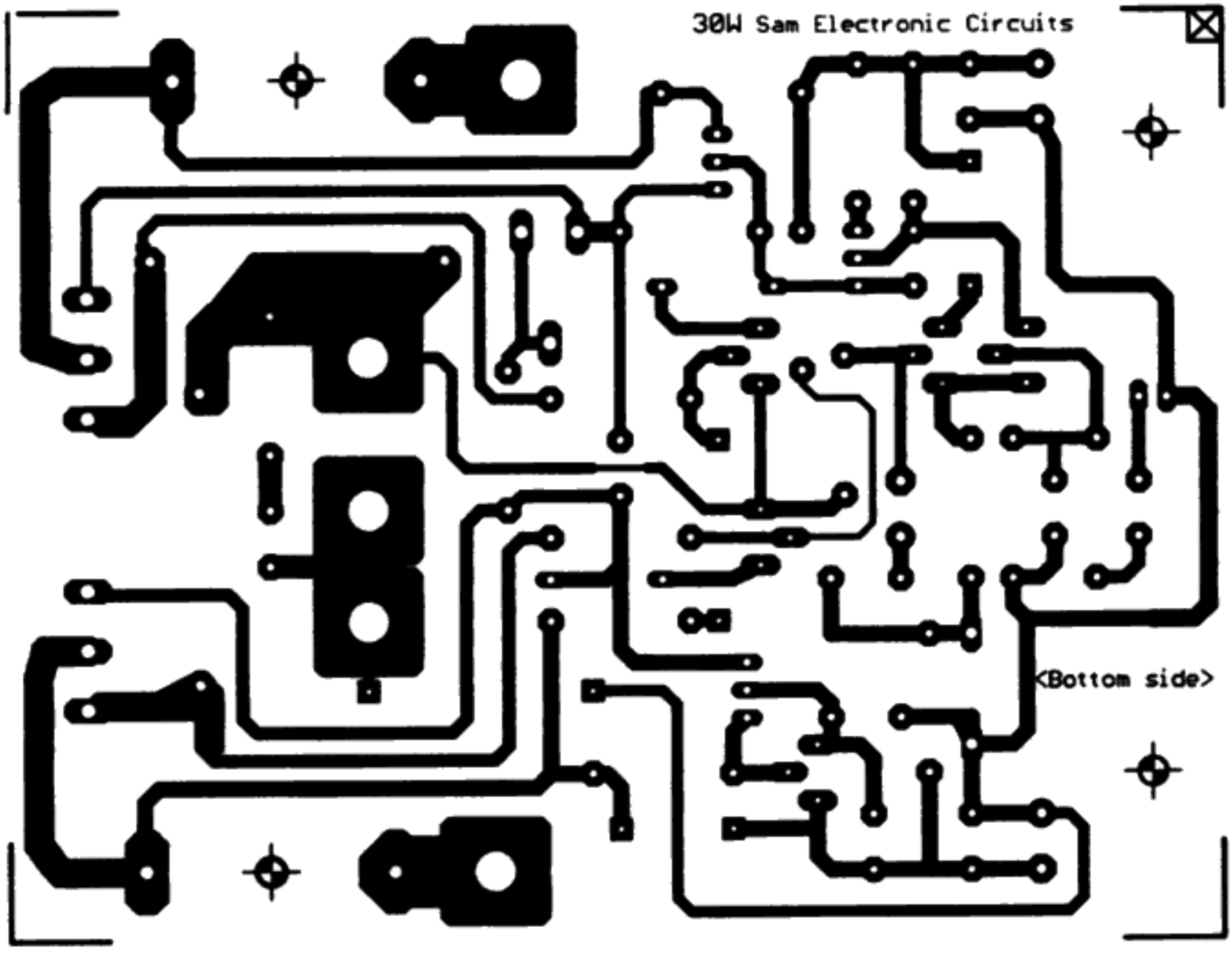


Fig.1--POWER AMPLFIER 30W Sam 8/02


110mm
85mm
Sam Electronic Circuits 30W
<<Top side>>
J1
IN
J2
+V
J3
OUT
J4
0V
J5
0V
J6
-V
F1
F2
BIAS
TR1
R20
206
4W
R21
206
4W
C1
C2
C3
C4
C5
C6
C7
C8
C9
C10
C11
R1
R2
R3
R4
R5
R6
R7
R8
R9
R10
R11
R12
R13
R14
R15
R16
R17
R18
Q1
Q2
Q3
Q4
Q5
Q6
Q7
Q8
Q9
Q10
D1
D2
D3


30W Sam Electronic Circuits
<Bottom side>

Alkatrészlista

R1=1Kohm
R2=47Kohm
R3=1.5Kohm
R4-5=10Kohm
R6=5.6Kohm
R7=10ohm
R8=47Kohm
R9=560ohm
R10-11=8.2Kohm
R12-15=120ohm
R13=680ohm
R14=330ohm
R16-17=270ohm
R18=22ohm 1W
R19=NC
R20-21=0.39ohm 4W
All the resistors is 1/4W 1% except quote differently

C1=470nF 100V MKT
C2=1nF 100V MKT
C3=68pF ceramic
C4-8=22nF 100V MKT
C5-6-7=100nF 100V MKT
C9=47uF 25V
C10-11=220uF 63V

D1=9.1V 0.4W zener
D2-3=1N4148

Q1-2=**BC550C**
Q3=**MPSA56**
Q4=**BC547B**
Q5=**BC212**
Q6=**BC183**
Q7-8=**MPSAO6**
Q9=**TIP141**
Q10=**TIP146**

F1-2=1.6AT FUSE

TR1=250ohm trimmer

Many times we needed a small power amplifier, but good quality, made from distinguishable components. The design does not have any innovation. In the power stage exist a pair of transistors Darlington in package TOP3, which can screwing on a heatsink, putting between them and in the heatsink, suitable leaves mica and silicone ointment on better temperature kidnapping. The bias current regulation becomes with the TR1, as follows. We place in terminally one from resistors R20 or their R21 multimeter binding post, in scale 200mV and we regulate late the TR1 until we take clue 12mV. This voltage dip (fall) corresponds in current 30mA. We thinly leave the amplifier in this regulation for 15 min. without signal in the input and check again. If it need we correct the regulation in 30mA.

(http://users.otenet.gr/~athsam/power_amplifier_30w.htm)