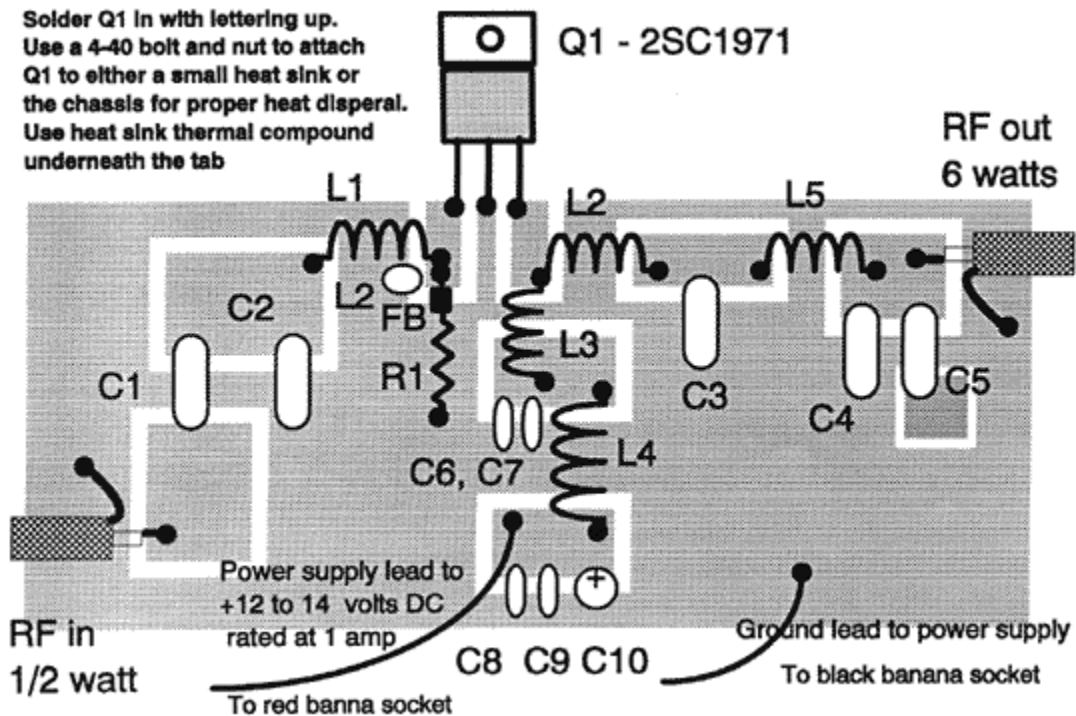
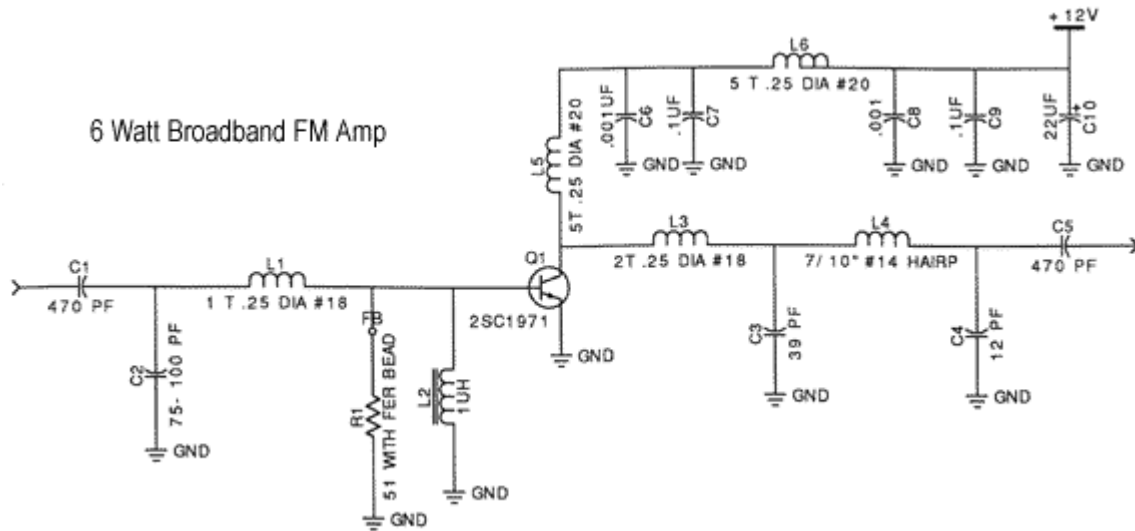


6 Watt RF Amp

Assemble by soldering the components to the pads indicated. Keep coil, resistor, and capacitor leads as short as possible. The coils should be $\frac{3}{16}$ " to $\frac{1}{4}$ " above the board and separate turns by one wire diameter. Bend leads to form a little mounting foot for soldering to the circuit board. Tuning and power output are affected by the distance between the coil turns, you can make fine adjustments by either spreading or compressing the coil slightly. The area surrounding the pads is ground. C2, C3, C4, C6, C7, C8, C9, C10, L2, and R1 are soldered at one end to ground as well as the shield braid on the coax cables. Bolt Q1 to a small heat sink or the chassis with heat sink thermal compound or gray thermal pad underneath the tab. With an input level of 200-500mw, you should see an output of 5-6 watts. Be sure to have a proper dummy load (50 ohms) or tuned antenna connected to the output, doing otherwise will likely destroy the transistor.



Schematic



Parts List

Quantity	Description	Part Number(s)
2	470 pF mica capacitor	C1, C5
1	75 pF mica capacitor	C2
1	39 pF mica capacitor	C3
1	12 pF mica capacitor	C4
2	0.001 uF disc or monolythic capacitor (marked either 102, .001, or 1n)	C6, C8
2	0.1 uF disc or monolythic capacitor (marked either 104, .1, or 100n)	C7, C9
1	10 to 22 uF electrolytic capacitor (observe correct polarity)	C10
1	1 turn #18 tinned copper, 1/4" dia.	L1
1	1 uH inductor, blue lumpy item	L2
1	2 turns #18, 1/4" dia.	L3
1	7/10" #14, hairpin	L4
2	5 turns #20, 1/4" dia.	L5, L6
1	56 ohm resistor with ferrite bead over lead at the base of end of Q1	R1
1	2SC1971 RF transistor	Q1
2	SO239 socket	
2	banana plug (1 each red and black)	
2	banana socket (1 each red and black)	
1	ferrite beads, RG174 coax cable, hookup wire, 4-40 nuts	