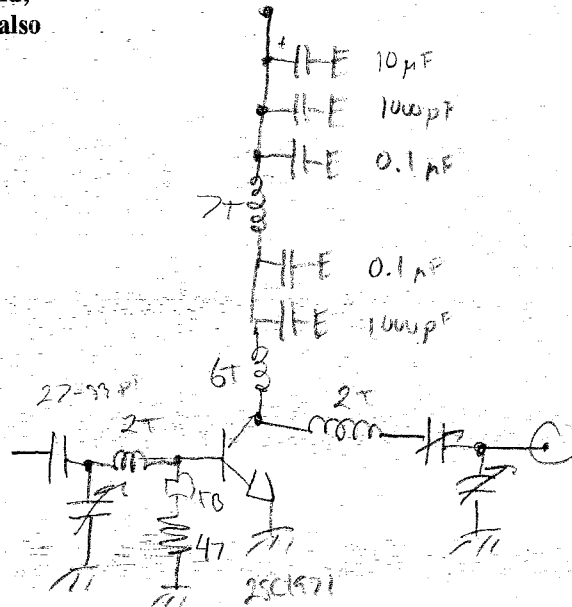


## 7 Watt VHF Linear Amplifier

If this kit is built correctly, it will amplify a signal of 1/5 to 3/4 watt up to about 7 watts of output from 80 to over 120 MHz. Actual output depends on voltage, load or antenna ( Note: Connecting this to an antenna may be illegal in some countries), input signal and, of course, construction techniques. This kit will also work best if it is mounted in a metal enclosure.

### Parts List

- ✓ Q- 2SC1971 NPN transistor
- ✓ VC1, VC2, VC3- 2 to 80pf variable capacitor
- ✓ C1, C3- .001ufd monolithic (axial) capacitors
- ✓ C2, C3- .1ufd monolithic (axial) capacitors
- ✓ C5- Electrolytic capacitor (10 to 100uf)
- ✓ C6- 27-33pf disc capacitor
- ✓ R- 47 ohm resistor
- ✓ FB- ferrite bead
- L1, L2- 2 turn coil
- L3- 6 turn coil
- L4- 7 turn coil
- PC board



### Assembly Instructions

The transistor, Q1, will need to be mounted to a heat sink. The chassis of a metal box is a convenient and effective heat sink. Be sure to install it with the numbers and letters facing the PC board. Failure to mount this part correctly or inadequate heat sinking will destroy the transistor. Heat sink grease is recommended. You need not worry about grounding out the transistor, the case and tab are connected to the emitter, which is also the ground.

### Tuning

Tune your transmitter to the desired frequency. Place the amplifier in series with the transmitter. You can of course, use any type connector you choose, or you can wire it directly, depending on personal preference. Connect a RF power meter with a proper load attached to the output of the amplifier. Apply 12 to 15 volts to the power leads. Notice the reading on the meter. Adjust VC1 for highest reading. Do the same for VC2, and VC3. You should get between 6 and 7 watts of output. Even though you can adjust the amplifier to almost 10 watts, doing so for any extended amount of time will most likely fry your Q1 transistor!