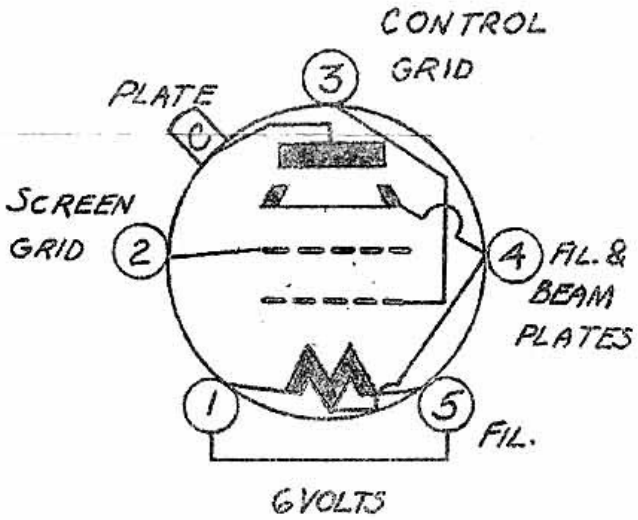
R.F. POWER AMPLIFIER AND OSCILLATOR - CLASS "C" TELEGRAPHY **

Maximum Ratings

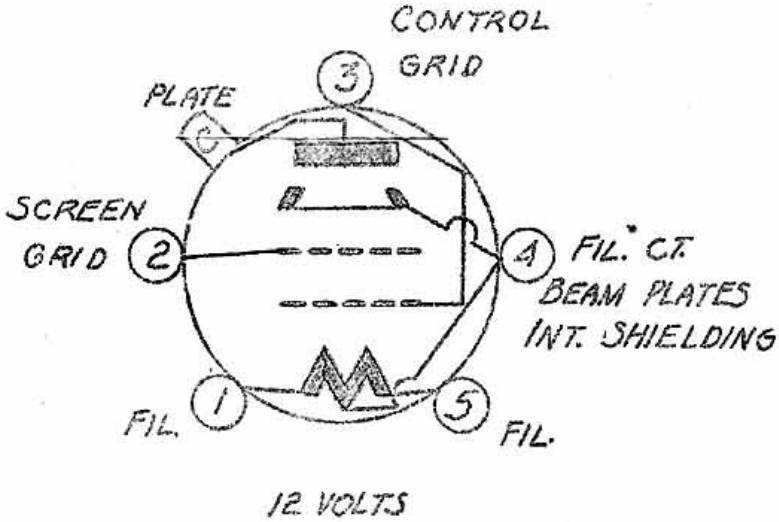
D.C. plate potential	1250 max. volts
D.C. screen potential	300 max. volts
D.C. grid bias	-300 max. volts
D.C. plate current	175 max. ma.
D.C. plate input	215 max. watts
D.C. screen input	10 max. watts
Plate dissipation	65 max. watts

Typical Operating Conditions

D.C. plate potential	750	1000	1250	volts
D.C. screen potential	300	300	300 approx.	volts
D.C. grid bias	-60	-70	-80 approx.	volts
D.C. plate current	120	150	175	ma.
D.C. grid current	10	10	10 approx.	ma.
Driving power	1.4	1.4	1.5 approx.	watts
Power output	64	105	152 approx.	watts



On DC, ground #4 pin.
On AC, ground fil. transformer CT, and by-pass #4 pin to ground.
Tie pins #1 and #5 together by external jumper.



On DC, ground #3 pin, and by-pass #4 pin to ground.
On AC, by-pass #4 pin to ground, and ground fil. transformer CT.

** An excellent application will be found on p.p. 224 - 227 of "The Radio Amateur's Handbook" for 1942.

IMPORTANT -- Any slight discoloration appearing on the inside of the envelope of the HY67 in no way affects the operation of this tube; its presence should be disregarded.

TENTATIVE SPECIFICATIONS

The HY67 is an all-purpose graphite-anode R.F. beam power tetrode with rugged four-way mechanical support making the tube unusually well-suited for use in aircraft and similar applications where the equipment is subjected to extreme vibrations and mechanical shock. The R.F. shielding of the HY67 is complete, and therefore, neutralizing is not necessary.

MAXIMUM RATINGS AND TYPICAL OPERATION

Filament potential (AC-DC) instant-heating	5.7 to 6.6* or 11.4 to 13.2* volts
Filament current	4.5 amps. at 6.0 V. 2.25 amps. at 12.0 V.
Output capacitance	14.5 mmf
Grid to plate capacitance	0.185 mmf

Average tube characteristics

at E_f = 12.0, Ep = 1250, Esg = 300, Eg = -23

Mutual conductance	3800 umhos
Plate resistance	80,000 ohms
Amplification factor	290
Plate current	39 ma.

PLATE AND SCREEN MODULATED R.F. POWER AMPLIFIER

Maximum Ratings

D.C. plate potential	1000 max. volts
D.C. screen potential	300 max. volts
D.C. grid Bias	500 max. volts
D.C. plate current	150 max. ma.
D.C. grid current	15 max. ma.
D.C. plate input	145 max. watts
D.C. screen input	7.5 max. watts
D.C. plate dissipation	44 max. watts

* Rises to 65 watts when 100% modulated by audio of sine wave form.

Typical Operating Conditions

D.C. plate potential	750	1000		volts
D.C. screen potential	300	300	approx.	volts
D.C. grid bias	-150	-150	approx.	volts
D.C. plate current	120	145		ma.
D.C. grid current	12	14		ma.
Driving power	2	2	approx.	watts
Power output	64	101	approx.	watts

* Although the filament is centered for operation at 6.0 or 12.0 volts, satisfactory performance will obtain when the filament voltage is 6.3 or 12.6 volts. For brief periods of time, such as are normally encountered when it is battery-operated, the filament may be run at values deviating from the potentials given by ±5%; namely, at 5.7 or 11.4 volts minimum, and at 6.6 or 13.2 volts maximum. Operation beyond these limits will ruin the tube.