

**6F6  
6F6G**

**RAYTHEON**

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6F6G**

**PENTODE  
POWER AMPLIFIER**

Heater Type

Metal Bulb-6F6 Glass Bulb-6F6G

The 6F6 is a pentode type power amplifier tube designed for service in the output stage of storage battery or a-c operated receivers. The ratings and electrical characteristics are identical with those of the type 42.

**RATINGS**

Heater Voltage (a-c or d-c) 6.3 volts  
Heater Current 0.7 amp  
Maximum Plate Voltage 315 volts  
Maximum Screen Voltage 315 volts

**AMPLIFIER - CLASS A**

|                      | Pentode Connection |        | Triode Connection† |         |
|----------------------|--------------------|--------|--------------------|---------|
| Plate Voltage        | 250                | 315    | 250 max.           | volts   |
| Screen Voltage       | 250                | 315    |                    | volts   |
| Grid Bias            | -16.5              | -22    | -20                | volts   |
| Amplification Factor | 200‡               | 200‡   | 7                  |         |
| Plate Resistance     | 80000‡             | 75000‡ | 2600               | ohms    |
| Transconductance     | 2500               | 2650   | 2700               | μmhos   |
| Plate Current        | 34                 | 42     | 31                 | ma      |
| Screen Current       | 6.5                | 8      |                    | ma      |
| Load Resistance      | 7000               | 7000   | 4000               | ohms    |
| Total Harmonic Dist. | 7                  | 7      | 5                  | percent |
| Power Output         | 3                  | 5      | 0.85               | watts   |

**AMPLIFIER - CLASS AB - TWO TUBES**

|                          | Pentode Connection |           | Triode Connection† |           |
|--------------------------|--------------------|-----------|--------------------|-----------|
|                          | Fixed-Bias         | Self-Bias | Fixed-Bias         | Self-Bias |
| Plate Voltage            | 375 max.           | 375 max.  | 350 max.           | 350 max.  |
| Screen Voltage           | 250 max.           | 250 max.  |                    |           |
| Grid Bias                | -26 min.           |           | -38                |           |
| Self-Bias Resistor       |                    | 340 min.  |                    | 730 min.  |
| Signal Pk.Volt.(G to G)  | 82                 | 94        | 123                | 132       |
| No-Signal Plate Current  | 34                 | 54        | 45                 | 50        |
| No-Signal Screen Current | 5                  | 8         |                    |           |
| Load Resistance(P to P)  | 10000              | 10000     | 6000               | 10000     |
| Total Harmonic Dist.     | 5                  | 5         | 7                  | 7         |
| Power Output (approx.)#  | 19*                | 19A       | 18**               | 14¶       |

Plate Voltage  
Screen Voltage  
Grid Bias  
Self-Bias Resistor  
Signal Pk.Volt.(G to G)  
No-Signal Plate Current  
No-Signal Screen Current  
Load Resistance(P to P)  
Total Harmonic Dist.  
Power Output (approx.)#

#With one 6F6 or 6F6G triode connected as driver operated at plate voltage of 250 volts, grid bias of -20 volts and plate load of approximately 10000 ohms.

\*Input transformer ratio, primary to 1/2 secondary = 3.32

AInput transformer ratio, primary to 1/2 secondary = 2.5

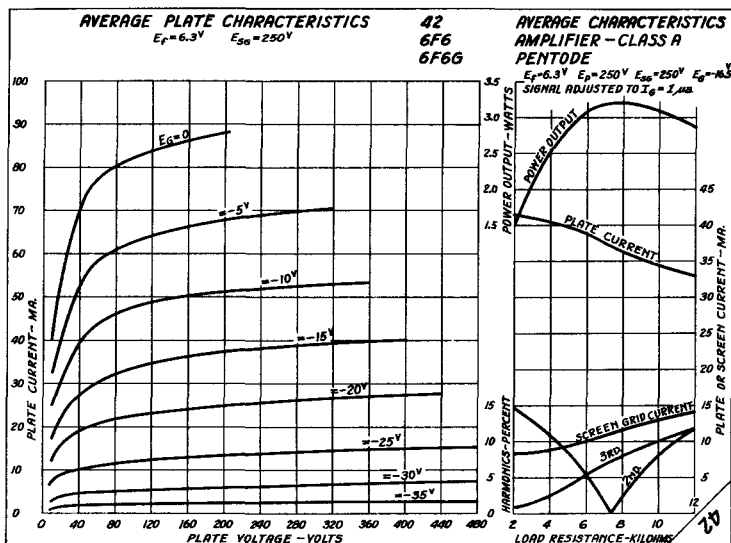
\*\*Input transformer ratio, primary to 1/2 secondary = 1.67

¶Input transformer ratio, primary to 1/2 secondary = 1.29

†Screen connected to plate.

‡Approximate

For additional curves refer to the type 42.



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