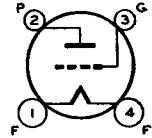


RCA-31

POWER AMPLIFIER



The 31 is a power-amplifier tube of the three-electrode type for battery-operated radio receivers where economy of filament-current drain is important.

CHARACTERISTICS

| | | |
|----------------------------|---------------------|------------------|
| FILAMENT VOLTAGE (D. C.) | 2.0 | Volts |
| FILAMENT CURRENT | 0.130 | Ampere |
| PLATE VOLTAGE | 135 180 <i>max.</i> | Volts |
| GRID VOLTAGE | -22.5 -30 | Volts |
| PLATE CURRENT | 8.0 12.3 | Milliamperes |
| PLATE RESISTANCE | 4100 3600 | Ohms |
| AMPLIFICATION FACTOR | 3.8 3.8 | |
| TRANSCONDUCTANCE | 925 1050 | Micromhos |
| LOAD RESISTANCE | 7000 5700 | Ohms |
| SELF-BIAS RESISTOR | 2815 2440 | Ohms |
| UNDISTORTED POWER OUTPUT | 0.185 0.375 | Watt |
| GRID-PLATE CAPACITANCE | 5.7 | $\mu\mu\text{f}$ |
| GRID-FILAMENT CAPACITANCE | 3.5 | $\mu\mu\text{f}$ |
| PLATE-FILAMENT CAPACITANCE | 2.7 | $\mu\mu\text{f}$ |
| BULB | | ST-12 |
| BASE | | Small 4-Pin |

INSTALLATION

Refer to INSTALLATION on type 30.

APPLICATION

As a **power amplifier**, the 31 should be operated as shown under CHARACTERISTICS. Grid voltage may be obtained from a C-battery, or by means of a self-bias resistor connected in the negative plate-return lead. The latter method is required where a grid resistor (maximum value 1 megohm) is used. If more output is desired than can be obtained from a single 31, two 31's may be operated either in parallel or **push-pull connection**.

