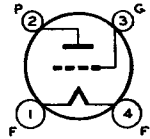


RCA-31

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**.

