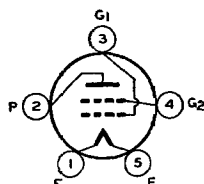


# RCA-49

## DUAL-GRID POWER AMPLIFIER

The 49 is a double-grid power amplifier tube designed for use in battery-operated receivers employing 2-volt tubes. In such service, it may be used either as a Class B output tube or, by a change in socket connections, as a Class A driver tube.



### CHARACTERISTICS

|                          |      |              |
|--------------------------|------|--------------|
| FILAMENT VOLTAGE (D. C.) | 2.0  | Volts        |
| FILAMENT CURRENT         | 0.12 | Ampere       |
| BULB                     |      | ST-14        |
| BASE                     |      | Medium 5-Pin |

#### As Class B Power Amplifier

(Grids No. 1 and No. 2 connected together at socket)

|                             |          |              |
|-----------------------------|----------|--------------|
| PLATE VOLTAGE               | 180 max. | Volts        |
| PEAK PLATE CURRENT          | 50 max.  | Milliamperes |
| TYPICAL OPERATION (2 tubes) |          |              |

Values are for two tubes.

|                                            |      |       |              |
|--------------------------------------------|------|-------|--------------|
| Plate Voltage                              | 135  | 180   | Volts        |
| Grid Voltage                               | 0    | 0     | Volts        |
| Zero-Signal Plate Current                  | 2.6  | 4     | Milliamperes |
| Effective Load Resistance (Plate-to-plate) | 8000 | 12000 | Ohms         |
| Power Output Approximate                   | 2.3  | 3.5   | Watts        |

#### As Driver—Class A<sub>1</sub> Amplifier

(Grid No. 2 connected to plate at socket)

|                            |          |              |
|----------------------------|----------|--------------|
| PLATE VOLTAGE              | 135 max. | Volts        |
| GRID VOLTAGE               | -20      | Volts        |
| PLATE CURRENT              | 6.0      | Milliamperes |
| PLATE RESISTANCE           | 4175     | Ohms         |
| AMPLIFICATION FACTOR       | 4.7      |              |
| TRANSCONDUCTANCE           | 1125     | Micromhos    |
| LOAD RESISTANCE            | 11000*   | Ohms         |
| POWER OUTPUT (Approximate) | 0.170    | Watt         |

\* Approximately twice this value is recommended for load of this tube as driver for Class B stage.

### INSTALLATION AND APPLICATION

The base pins of the 49 fit the standard five-contact socket which should be installed to hold the tube in a vertical position. In some cases, cushioning of the socket may be found desirable. For filament operation, refer to INSTALLATION on type 1A6. Refer to APPLICATION for type 46. Plate characteristics curves are given on the following page.

