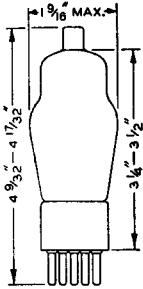
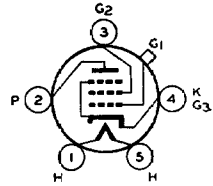


# RCA-38

## POWER-AMPLIFIER PENTODE



The 38 is a power-amplifier pentode of the heater-cathode type. The relatively low heater current of this type makes it suitable for automobile receivers and for power-line-operated sets, particularly those with a series-heater arrangement.



### CHARACTERISTICS

HEATER VOLTAGE (A. C. or D. C.)	6.3	Volts
HEATER CURRENT	0.3	Ampere
PLATE VOLTAGE	100 135 180 250 max.	Volts
SCREEN VOLTAGE	100 135 180 250 max.	Volts
GRID VOLTAGE	-9 -13.5 -18 -25	Volts
PLATE CURRENT	7 9 14 22	Milliamperes
SCREEN CURRENT	1.2 1.5 2.4 3.8	Milliamperes
PLATE RESISTANCE	0.14 0.13 0.115 0.10	Megohm
AMPLIFICATION FACTOR	120 120 120 120	
TRANSCONDUCTANCE	875 925 1050 1200	Micromhos
LOAD RESISTANCE	15000 13500 11600 10000	Ohms
SELF-BIAS RESISTOR	1100 1100 1100 970	Ohms
POWER OUTPUT	0.27* 0.55† 1.0* 2.5*	Watts
GRID-PLATE CAPACITANCE	0.30	$\mu\mu\text{f}$
INPUT CAPACITANCE	3.5	$\mu\mu\text{f}$
OUTPUT CAPACITANCE	7.5	$\mu\mu\text{f}$
BULB		ST-12
CAP		Small Metal
BASE		Small 5-Pin

\* 8% total harmonic distortion.

† 10% total harmonic distortion.

### INSTALLATION AND APPLICATION

The base pins of the 38 fit the standard five-contact socket which may be installed to hold the tube in any position. For heater operation and cathode connection, refer to INSTALLATION for type 6A8.

For the power amplifier stage of radio receivers, the 38 is recommended either singly or in push-pull combination. Transformer or impedance-coupling devices are preferable. If, however, resistance coupling is used, the d-c resistance in the grid circuit should be limited to 1.0 megohm with plate voltages up to 250 volts, provided the heater voltage does not rise more than 10% above the rated value under any condition of operation.

A plate family of characteristics is given on page 125.