RCA-6LM8 is a multiunit tube of the nine-pin miniature type containing a medium-mu triode and a semiremote-cutoff pentode in one envelope. This tube is useful in a wide variety of circuit applications in color and black-and-white TV receivers.

The pentode unit features a high value of plate current and is particularly suited for use in the burst-amplifier circuit of color-TV receivers. The triode unit may be used as a general-purpose amplifier tube.

The 6LM8 has an internal shield to reduce interaction between units, and separate base-pin connections for the cathodes of the triode and pentode units. This baring arrangement permits use of this type in a variety of circuit configurations. In addition, the 6LM8 utilizes the RCA Dark Heater for long life and dependable performance.

**GENERAL DATA**

**Electrical:**
- Heater Characteristics and Ratings:
  - Voltage (AC or DC) ........... 6.3 ± 0.6 volts
  - Current at 6.3 volts ........ 0.450 amp
  - Peak heater-cathode voltage (Each unit):
    - Heater negative with respect to cathode . . . . 200 max. volts
    - Heater positive with respect to cathode . . . . 200 max. volts
- Direct Inter-electrode Capacitances:
  - Grid to Plate .......... 1.8 pf
  - Input: Gf to (Kf, Kp+Gp+15, H) ... 3.2 pf
  - Output: Pf to (Kf, Kp+Gp+15, H) ... 1.9 pf
  - Pentode Unit:
    - Grid to Plate .......... 0.015 max. pf
    - Input: GIp to (Kf+Gp+15, Gp+15, H) ... 5.5 pf
    - Output: Pf to (Kf+Gp+15, Gp+15, H) ... 3.8 pf
    - Heater to Cathode (Each unit) .. 3.2 pf

**AMPLIFIER -- Class A1**

**Maximum Ratings, Design-Maximum Values:**
- Plate Voltage ........... 330 max. 350 max. volts
- Grid-No.2 (Screen-Grid) Supply Voltage ........... 330 max. volts
- Grid-No.2 Voltage ........... See GRID-NO. 2 INPUT RATING CHART
- Grid-No.1 (Control-Grid) Voltages:
  - Positive-bias value ........ 0 max. 0 max. volts
  - Grid-No.2 Input:
    - For grid-No.2 voltages up to 165 volts .... 0.55 max. watt
    - For grid-No.2 voltages between 165 and 350 volts ........... See GRID-NO. 2 INPUT RATING CHART
- Plate Dissipation ........ 2.5 max. 2.5 max. watts

**Maximum Circuit Values:**
- Grid-No.1-Circuit Resistance:
  - For fixed-bias operation ........ 0.5 max. 0.25 max. megohm
  - For cathode-bias operation ....... 1.0 max. 0.5 max. megohm

a The dc component must not exceed 100 volts.
b Measured in accordance with EIA Standard RS-191-A.
GRID-No. 2 INPUT RATING CHART

AVERAGE PLATE CHARACTERISTICS
TRIODE UNIT

AVERAGE CHARACTERISTICS
TRIODE UNIT

\[ E_p = 5.3 \text{ VOLTS} \]
AVERAGE CHARACTERISTICS
PENTODE UNIT

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DIMENSIONAL OUTLINE

Dimensions In Inches

* MEASURED FROM BASE SEAT TO BULB-TOP LINE AS DETERMINED BY RING GAUGE OF 7/16" I.D.

** APPLIES IN ZONE STARTING 0.375" FROM BASE SEAT.

TERMINAL DIAGRAM

Bottom View

Pin 1 - Triode Plate
Pin 2 - Pentode Grid No. 1
Pin 3 - Pentode Grid No. 2
Pin 4 - Heater
Pin 5 - Heater
Pin 6 - Pentode Plate
Pin 7 - Pentode Cathode, Pentode Grid No. 3, and Internal Shield
Pin 8 - Triode Cathode
Pin 9 - Triode Grid