

RCA-6HG5

BEAM POWER TUBE

7-Pin Miniature Type

Plate Dissipation: 12 Watts

Controlled Cathode Warm-up Time

RCA-6HG5 is a beam power tube of the 7-pin miniature type for use in the audio output stages of television receivers. This tube features a controlled cathode warm-up time of 14 seconds minimum to delay the flow of cathode current during receiver warm up. As a result, extraneous sound is minimized until high voltage is developed and the picture appears.

The 6HG5 has a plate dissipation of 12 watts and can provide a relatively high power output at low plate current. In addition, this type utilizes the RCA "Dark Heater" for long life and dependable performance.

Maximum Seated Length. 2-3/8"
Length, Base Seat to Bulb Top (Excluding Tip) . . 2" ± 3/32"
Diameter 0.650" to 0.750"
Bulb T5-1/2
Base . . . Small-Button Miniature 7-Pin (JEDEC No.E7-1)
Basing Designation for BOTTOM VIEW 7BZ

AMPLIFIER - Class A₁

Maximum Ratings, *Design-Maximum Values:*

Plate Voltage. 275 max. volts
Grid-No.2 (Screen-Grid) Voltage. . . 275 max. volts
Grid-No.2 Input. 2 max. watts
Plate Dissipation. 12 max. watts
Bulb Temperature (At hottest point
on bulb surface) 250 max. °C

GENERAL DATA

Electrical:

Heater Characteristics and Ratings:

Voltage (AC or DC) 6.3 ± 0.6 volts
Current. 0.45 amp

Peak heater-cathode voltage:

Heater negative with
respect to cathode 200 max. volts
Heater positive with
respect to cathode 200^a max. volts

Minimum Cathode Warm-up Time:^b

Heater volts = 6.3, plate
and grid-No.2 volts = 250,
and cathode resistor (ohms)
= 680. 14 sec

Direct Interelectrode Capacitances (Approx.):

Grid No.1 to plate 0.4 pf
Grid No.1 to cathode & grid No.3,
grid No.2, and heater. 8 pf
Plate to cathode & grid No.3,
grid No.2, and heater. 8.5 pf

Mechanical:

Operating Position Any
Maximum Overall Length 2-5/8"

Typical Operation and Characteristics:

Plate Voltage. 180 250 volts
Grid-No.2 Voltage. 180 250 volts
Grid-No.1 (Control-Grid) Voltage -8.5 -12.5 volts
Peak AF Grid-No.1 Voltage. . . . 8.5 12.5 volts
Zero-Signal Plate Current. . . . 29 45 ma
Max.-Signal Plate Current. . . . 30 47 ma
Zero-Signal Grid-No.2 Current. . . 3 4.5 ma
Max.-Signal Grid-No.2 Current. . . 4 7 ma
Plate Resistance (Approx.) . . . 58000 52000 ohms
Transconductance 3700 4100 μmhos
Load Resistance. 5500 5000 ohms
Total Harmonic Distortion. . . . 8 8 %
Max.-Signal Power Output 2 4.5 watts

Maximum Circuit Values:

Grid-No.1-Circuit Resistance:

For fixed-bias operation 0.1 max. megohm
For cathode-bias operation 0.5 max. megohm

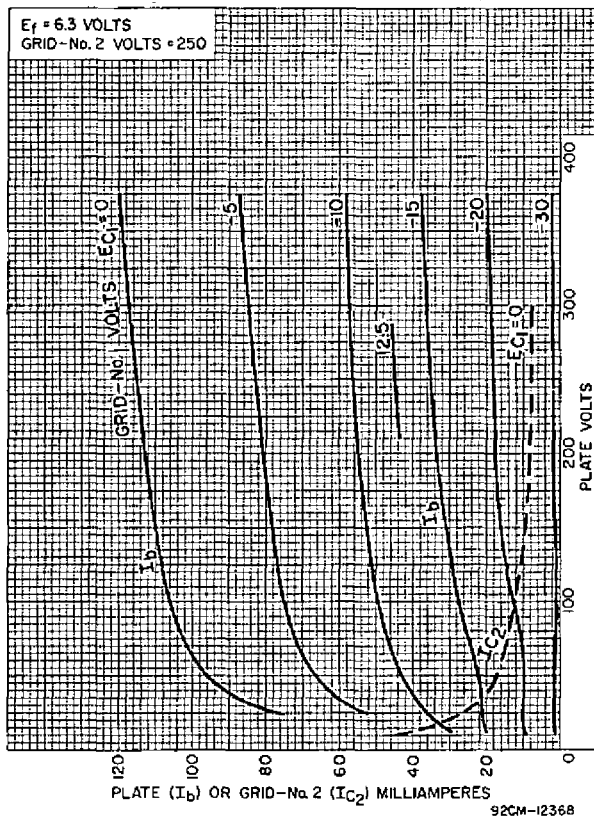
^a The dc component must not exceed 100 volts.

^b The time interval between the instant all electrode voltages are applied and the instant a current of one milliamperes flows in the plate circuit of the 6HG5.

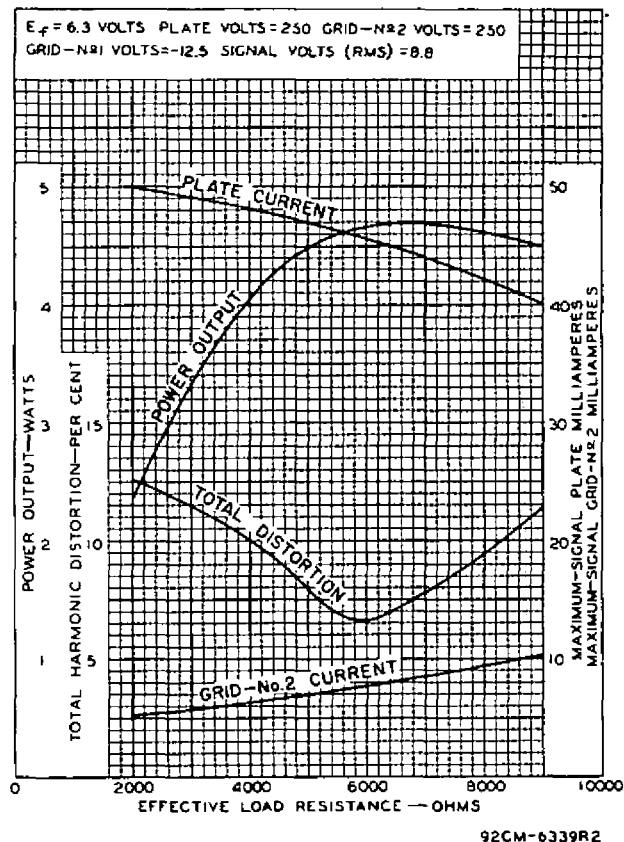
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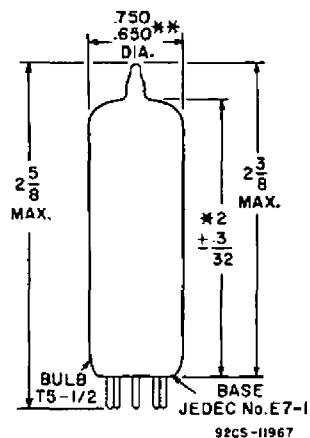
AVERAGE CHARACTERISTICS



OPERATION CHARACTERISTICS



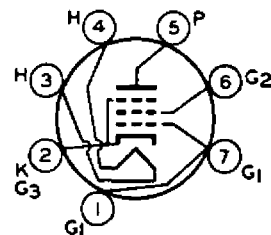
DIMENSIONAL OUTLINE



Dimensions in Inches

TERMINAL DIAGRAM

Bottom View



- Pin 1—Grid No. 1
- Pin 2—Cathode,
Grid No. 3
- Pin 3—Heater
- Pin 4—Heater
- Pin 5—Plate
- Pin 6—Grid No. 2
- Pin 7—Grid No. 1

* Measured from base seat to bulb-top line as determined by ring gauge of 7/16 inside diameter.

** Applies in zone starting 0.375 from base seat.