



6BQ5

POWER PENTODE

9-PIN MINIATURE TYPE

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GENERAL DATA

Electrical:

Heater, for Unipotential Cathode:

Voltage . . . . . 6.3 . . . . . ac or dc volts
Current . . . . . 0.76 . . . . . amp

Direct Interelectrode Capacitances:°

Grid No.1 to plate. . . . . 0.5 max. μf
Grid No.1 to cathode & grid No.3,
grid No.2, and heater . . . . . 10.8 μf
Plate to cathode & grid No.3,
grid No.2, and heater . . . . . 6.5 μf

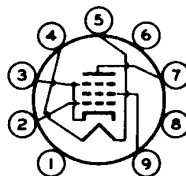
Characteristics, Class A1 Amplifier:

Plate Voltage . . . . . 250 volts
Grid-No.2 (Screen-grid) Voltage . . . . . 250 volts
Grid-No.1 (Control-grid) Voltage. . . . . -7.3 volts
Plate Resistance (Approx.). . . . . 38000 ohms
Transconductance. . . . . 11300 μhos
Plate Current . . . . . 48 ma
Grid-No.2 Current . . . . . 5.5 ma

Mechanical:

Operating Position. . . . . Any
Maximum Overall Length. . . . . 3-1/16"
Maximum Seated Length . . . . . 2-13/16"
Length, Base Seat to Bulb Top (Excluding tip). 2-7/16" ± 3/32"
Diameter. . . . . 0.750" to 0.875"
Dimensional Outline . . . . . See General Section
Bulb. . . . . T6-1/2
Base. . . . . Small-Button Noval 9-Pin (JEDEC No.E9-1)
Basing Designation for BOTTOM VIEW. . . . . 9CV

Pin 1 - Internal Connection - Do Not Use
Pin 2 - Grid No.1
Pin 3 - Cathode, Grid No.3
Pin 4 - Heater
Pin 5 - Heater
Pin 6 - Same as Pin 1
Pin 7 - Plate
Pin 8 - Same as Pin 1
Pin 9 - Grid No.2



AMPLIFIER - Class A1

Maximum Ratings, Design-Center Values:

PLATE VOLTAGE . . . . . 300 max. volts
GRID-No.2 (SCREEN-GRID) VOLTAGE . . . . . 300 max. volts
GRID-No.1 (CONTROL-GRID) VOLTAGE:
Positive-bias value . . . . . 0 max. volts
CATHODE CURRENT . . . . . 65 max. ma
PLATE DISSIPATION . . . . . 12 max. watts
GRID-No.2 INPUT°. . . . . 2 max. watts

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## PEAK HEATER-CATHODE VOLTAGE:

Heater negative with respect to cathode.	100 max.	volts
Heater positive with respect to cathode.	100 <sup>▲</sup> max.	volts

## Typical Operation:

Plate Voltage. . . . .	250	volts
Grid-No.2 Voltage. . . . .	250	volts
Grid-No.1 Voltage. . . . .	-7.3	volts
Peak AF Grid-No.1 Voltage. . . . .	6.2	volts
Zero-Signal Plate Current. . . . .	48	ma
Max.-Signal Plate Current. . . . .	50.6	ma
Zero-Signal Grid-No.2 Current. . . . .	5.5	ma
Max.-Signal Grid-No.2 Current. . . . .	10	ma
Effective Load Resistance. . . . .	4500	ohms
Total Harmonic Distortion. . . . .	10	%
Max.-Signal Power Output . . . . .	5.7	watts

## Maximum Circuit Values:

## Grid-No.1-Circuit Resistance:

For fixed-bias operation . . . . .	0.3 max.	megohm
For cathode-bias operation . . . . .	1 max.	megohm

○ Without external shield.

● Grid-No.2 input must not exceed 4 watts under maximum-signal conditions.

▲ The dc component must not exceed 100 volts.

## OPERATING CONSIDERATIONS

The *bulb* becomes hot during operation. To insure adequate cooling, therefore, it is essential that free circulation of air be provided.



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### AVERAGE CHARACTERISTICS

$E_f = 6.3$  VOLTS  
GRID-N#2 VOLTS = 250

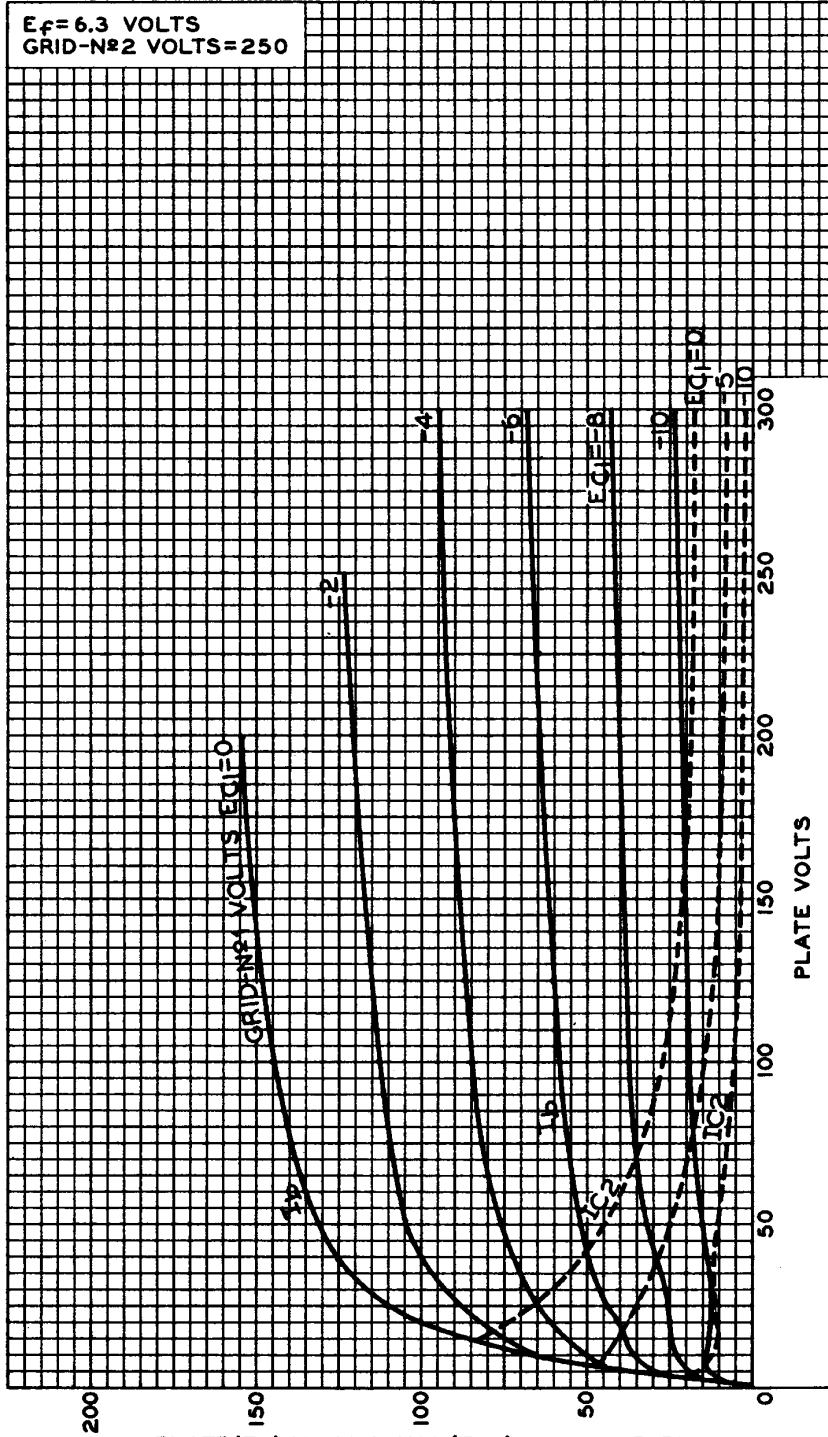


PLATE (I<sub>b</sub>) OR GRID-N#2 (I<sub>C2</sub>) MILLIAMPERES

ELECTRON TUBE DIVISION

92CM-9903

RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

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### OPERATION CHARACTERISTICS

$E_f = 6.3$  VOLTS  
PLATE VOLTS = 250  
GRID-№2 VOLTS = 250  
GRID-№1 VOLTS = -7.3  
AF GRID-№1 VOLTS  
(RMS) = 4.4

