



6BQ5

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POWER PENTODE

9-PIN MINIATURE TYPE

GENERAL DATA

Electrical:

Heater, for Unipotential Cathode:

Voltage 6.3 ac or dc volts

Current 0.76 amp

Direct Interelectrode Capacitances:^oGrid 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 μmhos

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" $\pm$ 3/32"

Diameter. 0.750" to 0.875"

Dimensional Outline See General Section

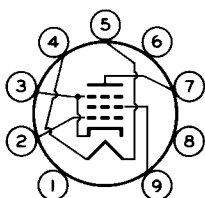
Bulb. T6-1/2

Base. Small-Button Noval 9-Pin (JEDEC No.E9-1)

Basing Designation for BOTTOM VIEW. 9CV

Pin 1 - Internal Con-
nection—
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 [▲]	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^o2 VOLTS = 250

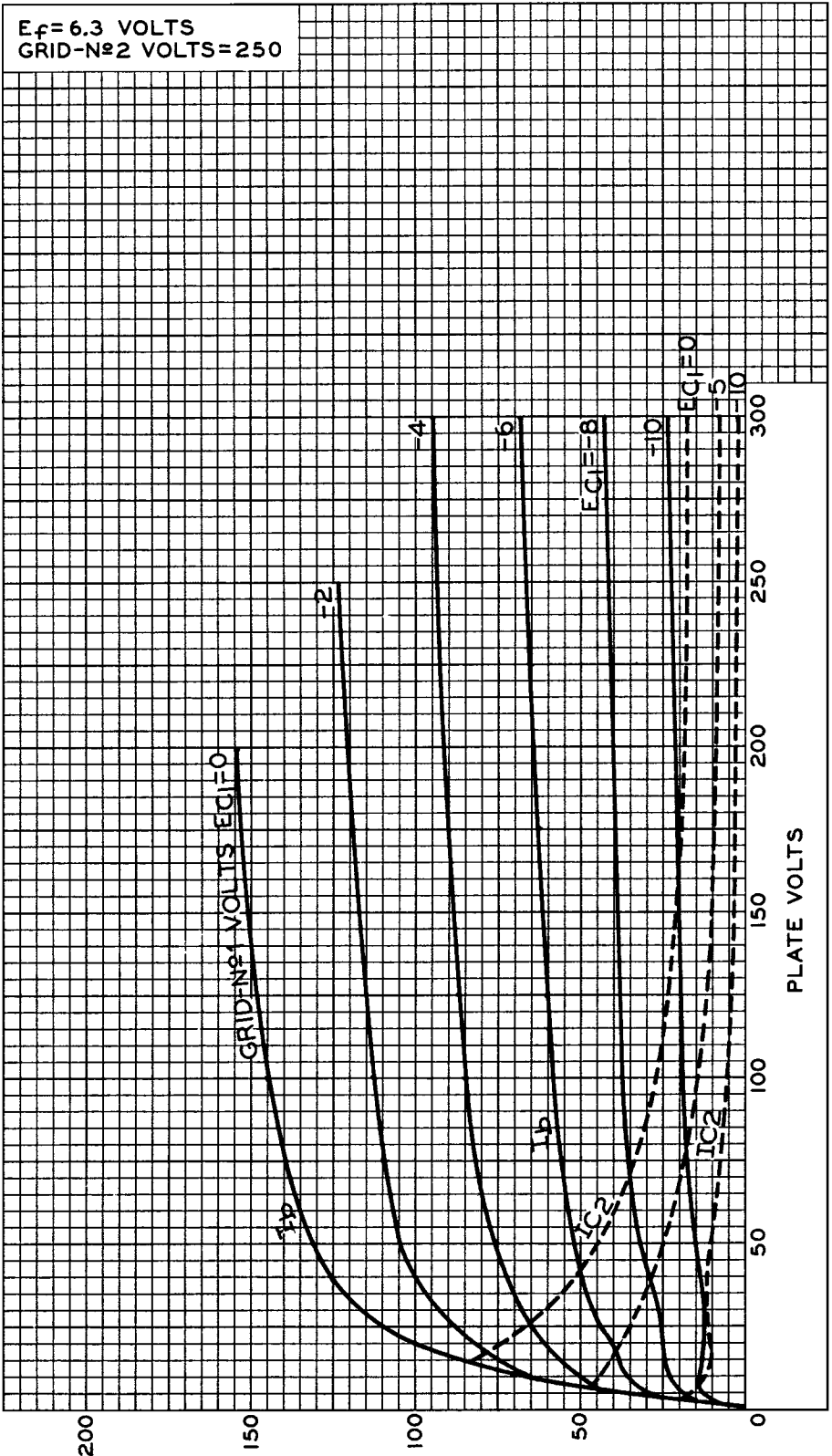


PLATE (I_b) OR GRID-N^o2 (I_{c2}) MILLIAMPERES

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-No 2 VOLTS = 250
 GRID-No 1 VOLTS = -7.3
 AF GRID-No 1 VOLTS
 (RMS) = 4.4

