### GENERAL DATA

**Electrical:**
- Heater, for Unipotential Cathode:
  - Voltage: 6.3 vac 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 μmhos
- Plate Current: 48 ma
- Grid-No. 2 Current: 5.5 ma

**Mechanical:**
- Operating Position: Any
- Maximum Overall Length: 3-1/16" or 2-13/16"
- 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 Diagram]

**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:** 0 max. volts
- **CATHODE CURRENT:** 65 max. ma
- **PLATE DISSIPATION:** 12 max. watts
- **GRID-No. 2 INPUT:** 2 max. watts

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**TENTATIVE DATA**

**RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY**
6BQ5
POWER PENTODE

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.
6BQ5

OPERATION CHARACTERISTICS

$E_C = 6.3$ VOLTS
PLATE VOLTS = 250
GRID-NEG 2 VOLTS = 250
GRID-NEG 1 VOLTS = -7.3
AF GRID-NEG 1 VOLTS
(RMS) = 4.4

POWER OUTPUT

TOTAL HARMONIC DISTORTION—PER CENT

EFFECTIVE LOAD RESISTANCE—OHMS

POWER OUTPUT—WATTS

DISTORTION

2000 4000 6000 8000 10000

ELECTRON TUBE DIVISION
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY
92CM-9902