6BQ5
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:
Grid No.1 to plate ........................................ 0.5 max. µµf
Grid No.1 to cathode & grid No.3,
grid No.2, and heater ............................... 10.8 µµf
Plate to cathode & grid No.3,
grid No.2, and heater ............................... 6.5 µµf

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 µµhos
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 Naval 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

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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ELECTRON TUBE DIVISION
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY
TENTATIVE DATA
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 ac 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.
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

POWER OUTPUT

DISTORTION

TOTAL HARMONIC DISTORTION—PER CENT

EFFECTIVE LOAD RESISTANCE—OHMS

POWER OUTPUT—WATTS

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92CM-9902