



6AQ5

BEAM POWER AMPLIFIER

MINIATURE TYPE

6AQ5

GENERAL DATA

Electrical:

Heater, for Unipotential Cathode:

Voltage 6.3 ac or dc volts

Current 0.45 amp

Direct Interelectrode Capacitances (Approx.):**

Grid No.1 to Plate. . . 0.35 μf Input 8.3 μf Output. 8.2 μf

** With no external shield.

Mechanical:

Mounting Position Any

Maximum Overall Length. 2-5/8"

Maximum Seated Length 2-3/8"

Length from Base Seat to Bulb Top (Excluding tip) 2" $\pm 3/32$ "

Maximum Diameter. 3/4"

Bulb. T-5-1/2

Base. Small-Button Miniature 7-Pin (JETEC No.E7-1)

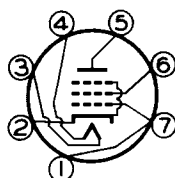
Basing Designation for BOTTOM VIEW. 7BZ

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

AF POWER AMPLIFIER - Class A₁

Maximum Ratings, Design-Center Values:

PLATE VOLTAGE 250 max. volts

GRID-No.2 VOLTAGE 250 max. volts

PLATE DISSIPATION 12 max. watts

GRID-No.2 INPUT 2 max. watts

PEAK HEATER-CATHODE VOLTAGE:

Heater negative with respect to cathode . 90 max. volts

Heater positive with respect to cathode . 90 max. volts

BULB TEMPERATURE (At hottest point)*. . . . 250 max. °C

Typical Operation and Characteristics:

Plate Voltage 180 250 volts

Grid-No.2 (Screen) 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

* High ambient temperature and shielding may necessitate a reduction in operating dissipation. When tube shields are used, it is advisable to paint the inside and outside surfaces of the tube shield a dull black and to provide ventilation slots to reduce operating temperature.

← Indicates a change

MAY 1, 1952

TUBE DEPARTMENT

DATA

RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

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Zero-Sig. Plate Current	29	45	ma.
Max.-Sig. Plate Current	30	47	ma.
Zero-Sig. Grid-No.2 Cur. (Approx.) . .	3	4.5	ma.
Max.-Sig. Grid-No.2 Cur. (Approx.) . .	4	7	ma.
Plate Resistance (Approx.)	58000	52000	ohms
Transconductance	3700	4100	μmhos
Load Resistance	5500	5000	ohms
Total Harmonic Distortion	8	8	%
Max.-Sig. Power Output	2.0	4.5	watts

Maximum Circuit Values (for maximum rated conditions):

Grid-No.1-Circuit Resistance:

For fixed bias.	0.1	megohm
For cathode bias.	0.5	megohm

AF POWER AMPLIFIER - Class AB₁

Maximum Ratings, Design-Center Values:

PLATE VOLTAGE	250 max.	volts
GRID-No.2 VOLTAGE	250 max.	volts
PLATE DISSIPATION	12 max.	watts
GRID-No.2 DISSIPATION	2 max.	watts
PEAK HEATER-CATHODE VOLTAGE:		
Heater negative with respect to cathode .	90 max.	volts
Heater positive with respect to cathode .	90 max.	volts
→ BULB TEMPERATURE (At hottest point)*. . . .	250 max.	°C

Typical Operation and Characteristics:

Unless otherwise specified, values are for 2 tubes

Plate Voltage	250	volts
Grid-No.2 (Screen) Voltage	250	volts
Grid-No.1 (Control-Grid) Voltage.	-15	volts
Peak AF Grid-to-Grid Voltage.	30	volts
Zero-Signal Plate Current	70	ma.
Max.-Signal Plate Current	79	ma.
Zero-Signal Grid-No.2 Current	5	ma.
Max.-Signal Grid-No.2 Current	13	ma.
Plate Resistance (per tube)	60000	ohms
Transconductance (per tube)	3750	μmhos
Effective Load Resistance (Plate to plate). .	10000	ohms
Total Harmonic Distortion	5	%
Max.-Signal Power Output	10	watts

Maximum Circuit Values (for maximum rated conditions):

Grid-No.1-Circuit Resistance:

For fixed bias.	0.1	megohm
For cathode bias.	0.5	megohm

Curves for the 6AQ5, within its ratings, are the same as those shown for type 6V6.

• See preceding page.

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