



6W6-GT

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BEAM POWER AMPLIFIER

GENERAL DATA

Electrical:

Heater, for Unipotential Cathode:

Voltage 6.3 ac or dc volts

Current 1.2 amp

Direct Interelectrode Capacitances (Approx.):

Grid No.1 to Plate 0.5 max. $\mu\mu\text{f}$ Input 15 $\mu\mu\text{f}$ Output 9 $\mu\mu\text{f}$

Characteristics as Beam Power Amplifier:

See AMPLIFIER—Class A₁ below:

Characteristics as Triode-Connected Amplifier:

(Grid No.2 connected to plate)

Plate Voltage 225 volts

Grid-No.1 Voltage -30 volts

Amplification Factor 6.2

Plate Resistance 1600 ohms

Transconductance 3800 μmhos

Plate Current 22 ma

Grid-No.1 Voltage (Approx.) for
plate current of 0.5 ma -42 volts ←

Mechanical:

Mounting Position Any

Maximum Overall Length 3-5/16"

Maximum Seated Length 2-3/4"

Maximum Diameter 1-9/32"

Bulb T-9

Base. Intermediate-Shell Octal 6-Pin (JETEC No.B6-8) ←
or Intermediate-Shell Octal 7-Pin (JETEC No.B7-7)
or Short Intermediate-Shell Octal 6-Pin with Ex-
ternal Barriers (JETEC No.B6-60)
or Short Intermediate-Shell Octal 7-Pin with Ex-
ternal Barriers (JETEC No.B7-59)

Basing Designation for BOTTOM VIEW G-7AC

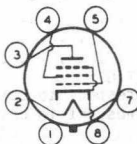
Pin 1—No

Connection

Pin 2—Heater

Pin 3—Plate

Pin 4—Grid No.2



Pin 5—Grid No.1

Pin 7—Heater

Pin 8—Cathode,
Grid No.3AMPLIFIER—Class A₁

Maximum Ratings, Design-Center Values:

PLATE VOLTAGE 300 max. volts

GRID-No.2 (SCREEN) VOLTAGE 150 max. volts

PLATE DISSIPATION 10 max. watts

GRID-No.2 INPUT 1.25 max. watts

← Indicates a change.

OCT. 1, 1953

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RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

TENTATIVE DATA

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BEAM POWER AMPLIFIER

PEAK HEATER-CATHODE VOLTAGE:

Heater negative with respect to cathode .	200 max.	volts
Heater positive with respect to cathode .	200 [▲] max.	volts

Typical Operation and Characteristics:

Plate Supply Voltage	110	200	volts
Grid-No.2 Voltage	110	125	volts
Grid-No.1 (Control-Grid) Voltage . .	-7.5	-	volts
Cathode-Bias Resistor	-	180	ohms
Peak AF Grid-No.1 Voltage	7.5	8.5	volts
Zero-Signal Plate Current	49	46	ma
Max.-Signal Plate Current	50	47	ma
Zero-Signal Grid-No.2 Current	4	2.2	ma
Max.-Signal Grid-No.2 Current	10	8.5	m
Plate Resistance (Approx.)	13000	28000	ohms
Transconductance	8000	8000	μmhos
Load Resistance	2000	4000	ohms
Total Harmonic Distortion (Approx.) .	10	10	%
Max.-Signal Power Output	2.1	3.8	watts

Maximum Circuit Values:

Grid-No.1-Circuit Resistance:

For fixed-bias operation	0.1 max.	megohm
For cathode-bias operation	0.5 max.	megohm

VERTICAL DEFLECTION AMPLIFIER

Triode Connected--Grid No.2 Connected to Plate

Maximum Ratings, Design-Center Values Except As Noted:

*For operation in a 525-line, 30-frame system**

DC PLATE VOLTAGE	300 max.	volts
PEAK POSITIVE-PULSE PLATE VOLTAGE [○]	1200 [▲] max.	volts
PEAK NEGATIVE-PULSE GRID-No.1 (CONTROL-GRID) VOLTAGE	-250 max.	volts
CATHODE CURRENT:		
Peak	140 max.	ma
DC	40 max.	ma
PLATE DISSIPATION	7.5 max.	watts
PEAK HEATER-CATHODE VOLTAGE:		
Heater negative with respect to cathode .	200 max.	volts
Heater positive with respect to cathode .	200 [▲] max.	volts

Maximum Circuit Values:

Grid-No.1-Circuit Resistance:

For cathode-bias operation	2.2 max.	megohms
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[▲] The dc component must not exceed 100 volts.

[●] As described in "Standards of Good Engineering Practice for Television Broadcast Stations", Federal Communications Commission.

[○] The duration of the voltage pulse must not exceed 15 per cent of one scanning cycle. In a 525-line, 30-frame system, 15 per cent of one scanning cycle is 2.5 milliseconds.

[▲] under no circumstances should this absolute value be exceeded.

OCT. 1, 1953

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TENTATIVE DATA

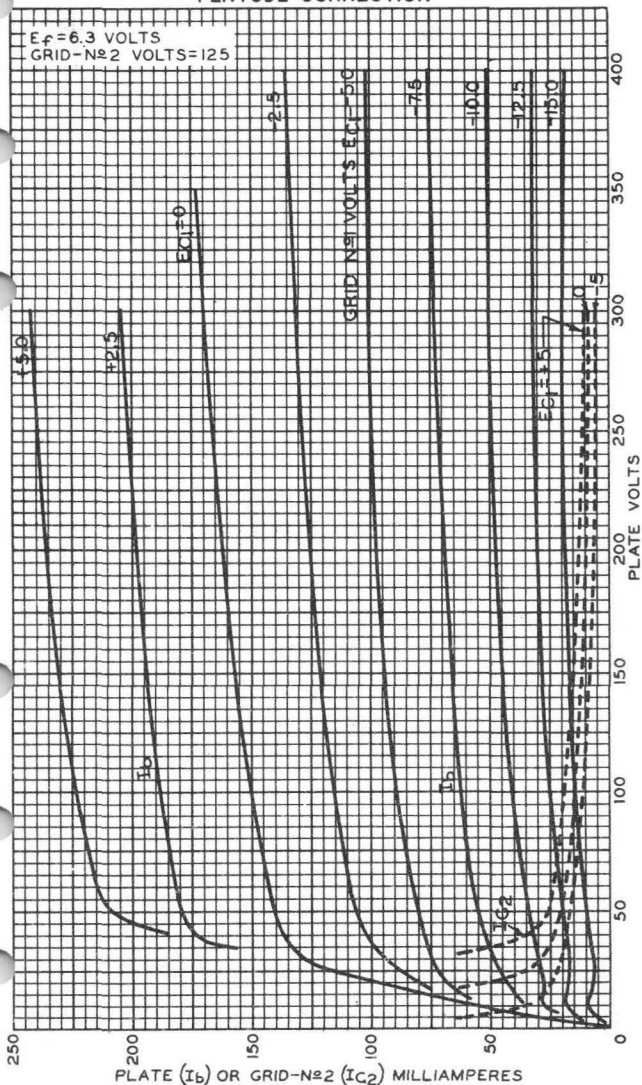
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AVERAGE PLATE CHARACTERISTICS PENTODE CONNECTION



MAR.20.1953

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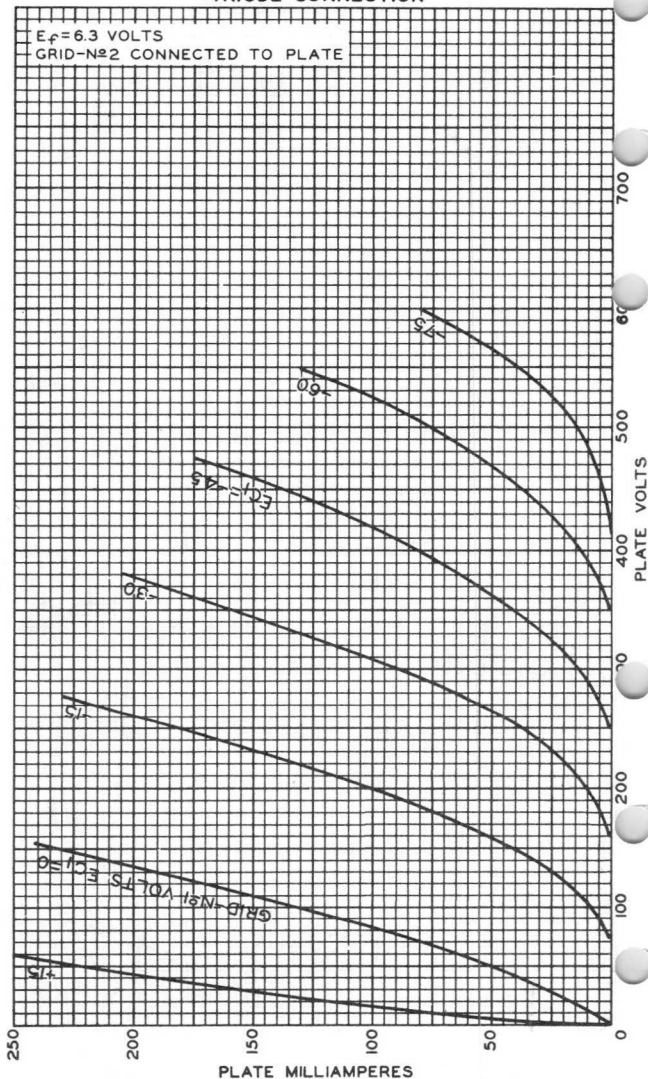
92CM-7942

6W6-GT



6W6-GT

AVERAGE PLATE CHARACTERISTICS TRIODE CONNECTION



MAR. 11, 1953

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92CM-7943