



6Y6-G

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BEAM POWER AMPLIFIER

GENERAL DATA

Electrical:

Heater, for Unipotential Cathode:

| | | |
|-------------------|------|----------------|
| Voltage | 6.3 | ac or dc volts |
| Current | 1.25 | amp |

Direct Interelectrode Capacitances (Approx.):^o

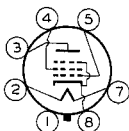
| | | |
|------------------------------|-----|------------------|
| Grid No.1 to Plate | 0.7 | $\mu\mu\text{f}$ |
| Input | 15 | $\mu\mu\text{f}$ |
| Output | 11 | $\mu\mu\text{f}$ |

^o with no external shield.

Mechanical:

| | |
|--|--------------------------|
| Mounting Position | Any |
| Maximum Overall Length | 4-5/8" |
| Seated Length | 3-7/8" + 3/16" - 5/16" |
| Maximum Diameter | 1-13/16" |
| Bulb | ST-14 |
| Base | Medium-Shell Octal 7-Pin |
| 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.3

AF POWER AMPLIFIER - Class A₁

Maximum Ratings, Design-Center Values:

| | | |
|---|-----------|-------|
| PLATE VOLTAGE | 200 max. | volts |
| GRID-NO.2 (SCREEN) VOLTAGE | 135 max. | volts |
| PLATE DISSIPATION | 12.5 max. | watts |
| GRID-NO.2 DISSIPATION | 1.75 max. | watts |
| PEAK HEATER-CATHODE VOLTAGE: | | |
| Heater negative with respect to cathode | 180 max. | volts |
| Heater positive with respect to cathode | 180 max. | volts |

Typical Operation and Characteristics:

| | | | |
|--|-------|-------|------------------|
| Plate Voltage | 135 | 200 | volts |
| Grid-No.2 Voltage | 135 | 135 | volts |
| Grid-No.1 (Control-Grid) Voltage | -13.5 | -14 | volts |
| Peak AF Grid-No.1 Voltage | 13.5 | 14 | volts |
| Zero-Signal Plate Current | 58 | 61 | ma |
| Max.-Signal Plate Current | 60 | 66 | ma |
| Zero-Signal Grid-No.2 Current | 3.5 | 2.2 | ma |
| Max.-Signal Grid-No.2 Current | 11.5 | 9.0 | ma |
| Plate Resistance (Approx.) | 9300 | 18300 | ohms |
| Transconductance | 7000 | 7100 | μmhos |
| Load Resistance | 2000 | 2600 | ohms |

←Indicates a change.

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| | | | |
|------------------------------------|-----|-----|-------|
| Total Harmonic Distortion. | 10 | 10 | % |
| Max.-Signal Power Output | 3.6 | 6.0 | 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 |

OSCILLATOR - Class C

For Television High-Voltage RF Supplies

Maximum Ratings, Design-Center Values:

| | | |
|--|----------|-------|
| DC PLATE VOLTAGE | 350 max. | volts |
| DC GRID-No.2 (SCREEN) VOLTAGE. | 135 max. | volts |
| DC GRID-No.1 (CONTROL-GRID) VOLTAGE. | -90 max. | volts |
| DC PLATE CURRENT | 80 max. | ma |
| DC GRID-No.1 CURRENT | 1.5 max. | ma |
| PLATE INPUT. | 23 max. | watts |
| GRID-No.2 INPUT. | 0.6 max. | watt |
| PLATE DISSIPATION. | 8 max. | watts |
| PEAK HEATER-CATHODE VOLTAGE: | | |
| Heater negative with respect to cathode | 180 max. | volts |
| Heater positive with respect to cathode | 180 max. | volts |

Typical Operation:

| | | |
|--|-------|-------|
| DC Plate Voltage | 350 | volts |
| DC Grid-No.2 Voltage ^{□□} | 115 | volts |
| | 5000 | ohms |
| DC Grid-No.1 Voltage† | -40 | volts |
| | 30000 | ohms |
| | 600 | ohms |
| Peak RF Grid-No.1 Voltage. | 48 | volts |
| DC Plate Current | 60 | ma |
| DC Grid-No.2 Current | 5.1 | ma |
| DC Grid-No.1 Current (Approx.) | 1.4 | ma |
| Driving Power (Approx.) | 0.1 | watt |
| Power Output (Approx.) | 14 | watts |

^{□□} obtained from a separate source, from the plate-voltage supply with a potentiometer, or through a series resistor of value shown.

† obtained from a fixed supply, by grid resistor (30000), by cathode resistor (600) or by combination methods.



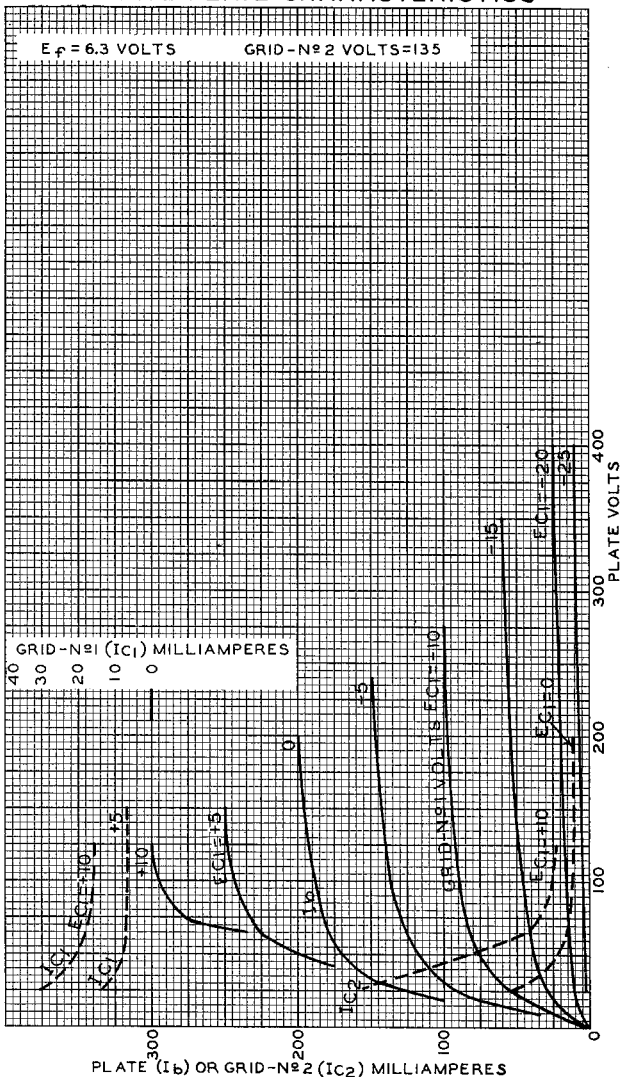
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AVERAGE PLATE CHARACTERISTICS

$E_p = 6.3$ VOLTS

GRID-Nº2 VOLTS = 135



SEPT. 11, 1946

TUBE DEPARTMENT

92CM-6127RI

RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

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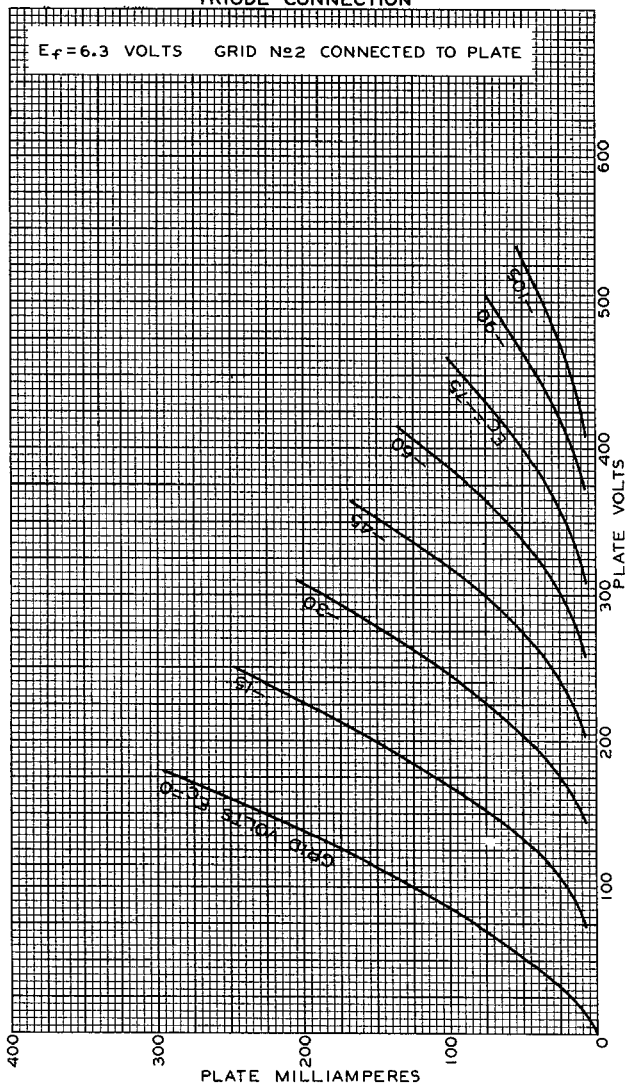


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AVERAGE PLATE CHARACTERISTICS TRIODE CONNECTION

 $E_f = 6.3$ VOLTS

GRID No2 CONNECTED TO PLATE



FEB. 8, 1944

PLATE MILLIAMPERES

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92CM-6538