POWER TRIODE
FORCED-AIR-COOLED, GROUNDED-GRID TYPE

GENERAL DATA

Electrical:
Filament, Multistrand Tungsten:
   Excitation . . . Single-Phase AC or DC
   Voltage . . . . . 11 . . . . . ac or dc volts
   Current . . . . 412 . . . . . amp
   Starting Current: The filament current must never exceed 750 amperes, even momentarily.
   Cold Resistance . . . . 0.0026 . . . . ohm
   Amplification Factor . . . 32
   Direct Inter-electrode Capacitances (Approx.):
   Grid to Plate . . . . . . . . 35 . . . . . . . . . . μf
   Grid to Filament . . . . . . . 76 . . . . . . . . . . μf
   Plate to Filament . . . . . . . 1.2 . . . . . . . . . . μf

Mechanical:
Terminal Connections:
   F-Filament Posts
   G-Grid-Flange
   P-Radiator-
   Terminal
   Diametrically Opposite Terminals
   Must be Connected Together

Mounting Position . . . . Vertical, Filament end up
Maximum Overall Length . . . . . 17-3/8"
Maximum Diameter . . . . . . 14-1/4"
Radiator . . . . Integral part of tube
Mounting . . . . Special
Air Flow:
   Through Radiator (for max. ratings) . . 1100 min. cfm
   The specified air flow at a pressure of 2.4 inches of water should be delivered by a blower vertically upward through the radiator. Air flow should be started before the application of any voltages.
   To Filament Seals . . . . 200 min. cfm
   The specified air flow from a duct 8 square inches in area directed into the filament header before and during the application of any voltages, is required to limit the temperature of the header and filament seals to the maximum value.
Input-Air Temperature (to radiator) . . . . 45 max. °C
Radiator Temperature (measured in thermometer well) . . . . 180 max. °C
Bulb Temperature . . . . . . . . 180 max. °C
Seal Temperature (filament, grid, plate) . . . . 165 max. °C

RF POWER AMPLIFIER & OSCILLATOR—Class C Telegraphy
Key-down conditions per tube without amplitude modulation

Maximum CCS® Ratings, Absolute Values:
DC PLATE VOLTAGE . . . . . . . . 11500 max. volts
DC GRID VOLTAGE . . . . . . . . -2000 max. volts
DC PLATE CURRENT . . . . . . . . 4.5 max. amp
DC GRID CURRENT . . . . . . . . 0.8 max. amp

See next page.

APRIL 15, 1947
TUBE DEPARTMENT
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY
TENTATIVE DATA
**POWER TRIODE**

| PLATE INPUT | 50 max. | kw |
| PLATE DISSIPATION | 17.5 max. | kw |

**Typical Operation in Grounded-Filament Circuit:**

| DC Plate Voltage | 7500 | 11000 | volts |
| DC Grid Voltage | -360 | -820 | volts |
| Peak RF Grid Voltage | 600 | 1000 | ohms |
| DC Plate Current | 4.4 | 3.6 | amp |
| DC Grid Current (Approx.) | 0.6 | 0.8 | amp |
| Driving Power (Approx.) | 450 | 1000 | watts |
| Power Output (Approx.) | 20 | 30 | kw |

**Typical Operation as Amplifier in Grounded-Grid Circuit at 108 Mc:**

| DC Plate Voltage | 7500 | volts |
| DC Grid Voltage | -1000 | volts |
| Peak RF Grid Voltage | 1650 | ohms |
| DC Plate Current | 1550 | volts |
| DC Grid Current (Approx.) | 4.4 | amp |
| Driving Power (Approx.) | 9000 | watts |
| Power Output (Approx.) | 27 | kw |

- Modulation essentially negative may be used if positive peak of the audio-frequency envelope does not exceed 115% of the carrier conditions.
- Continuous Commercial Service.
- Obtained by grid-resistor (600, 1000), cathode-resistor (75, 200) or by partial self-bias methods.
- Subject to wide variations as explained on sheet TUBE RATINGS in General Section.
- For Class C Telegraphy or Class C FM Telephony.

Data on operating frequencies for the 5592 are given on the sheet TRANS. TUBE RATINGS vs FREQUENCY.

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**FILAMENT CONNECTIONS**

- **V**: 11 VOLTS
- **A**: 412 AMR.
- **92CS-6628RI**

APRIL 15, 1947

TUBE DEPARTMENT
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

TENTATIVE DATA
POWER TRIODE

NOTE: FLEXIBLE CONNECTIONS ARE REQUIRED.

92CM-6827

APRIL 15, 1947
TUBE DEPARTMENT
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

CE-6827
COOLING REQUIREMENTS

\[ E_f = 11 \text{ VOLTS AC} \]

MAXIMUM RADIATOR TEMPERATURE = \(180^\circ\text{C} \)

<table>
<thead>
<tr>
<th>CURVE</th>
<th>PRESSURE DROP</th>
<th>INCHES OF WATER</th>
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<tbody>
<tr>
<td>A</td>
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<tr>
<td>B</td>
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<tr>
<td>C</td>
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CURVES TAKEN ACCORDING TO NAFM* STANDARDS - BULLETIN NO. 103

* NATIONAL ASSOCIATION OF FAN MFRS., GENERAL MOTORS BLDG., DETROIT, MICH.

JAN. 17, 1947

TUBE DEPARTMENT
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

92CM-6829
TYPICAL GRID CHARACTERISTICS

$E_F = 11$ VOLTS AC

PLATE VOLTS ($E_B$)

GRID AMPERES

MAY 3, 1947

TUBE DEPARTMENT
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

592CM - 6844