**715-C**

**PULSE AMPLIFIER TETRODE**

**GENERAL DATA**

**Electrical:**
- Heater, for Unipotential Cathode:
  - Voltage: 26 ± 2.5 ac or dc volts
  - Current: 2.1 amp
  - Minimum Heating Time: 3 minutes
- Direct Interelectrode Capacitances: 0 μf
  - Grid No.1 to Plate: 2 max.
  - Input: 37.5 μf
  - Output: 7.5 μf
- 0 with no external shield.

**Mechanical:**
- Mounting Position: Vertical, base up or down
- Overall Length: 5-3/4" ± 1/8"
- Seated Length: 5-5/16" ± 1/8"
- Maximum Diameter: 2-9/16"
- Bulb: T-20
- Cap: Medium with Dished Flange
- Base: Medium-Ceramic-Wafer Jumboid 4-Pin

**Bottom View**

Pin 1 - Grid No.1
Pin 2 - Heater, Cathode
Pin 3 - Heater
Pin 4 - Grid No.2
Cap - Plate

**Modulator - Pulsed Rectangular-Wave**

*With Inductive Load*

**Maximum CCS Ratings, Absolute Values:**

- DC PLATE SUPPLY VOLTAGE*: 15000 max. volts
- PEAK POSITIVE PLATE VOLTAGE: 18000 max. volts
- DC GRID-No.2 (SCREEN) SUPPLY VOLTAGE*: 1350 max. volts
- DC GRID-No.1 (CONTROL GRID) SUPPLY VOLTAGE: -1000 max. volts
- PEAK GRID-No.1 VOLTAGE:
  - Negative Value: 1200 max. volts
  - Positive Value: 300 max. volts
- PEAK PLATE CURRENT**, for duty factor not exceeding 0.001: 15 max. amp

* Continuous Commercial Service.

** Duty Factor equals product of pulse duration in seconds and the pulse repetition frequency in cycles per second.

** For peak currents in excess of 5 amperes, the product of peak plate current in amperes and pulse duration in microseconds should not exceed 30, and the tube should not be operated longer than 5 microseconds in any 100-microsecond interval.

For peak currents less than 5 amperes, the duty factor is determined by the maximum plate-dissipation rating of 60 watts.

*: See next page.
PEAK GRID-No.2 CURRENT .......................... 5 max. amp
PEAK GRID-No.1 CURRENT .......................... 2 max. amp
PLATE INPUT ....................................... 225 max. watts
GRID-No.2 INPUT .................................. 8 max. watts
GRID-No.1 INPUT .................................. 1 max. watt
PLATE DISSIPATION ................................ 60 max. watts

Typical Operation:

Duty Factor of 0.001

DC Plate Supply Voltage* ......................... 15000 volts
DC Grid-No.2 Supply Voltage* .................. 1250 volts
DC Grid-No.1 Supply Voltage .................. -800 volts
Peak Positive Grid-No.1 Voltage .............. +225 volts
Plate Current:
  DC Value ......................................... 0.015 amp
  Peak Value ...................................... 15 amp
DC Grid-No.2 Current ............................. 0.0015 amp
DC Grid-No.1 Current ............................. 0.010 amp
Load Resistance .................................. 800 ohms

CHARACTERISTICS RANGE VALUES FOR EQUIPMENT DESIGN

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Note</th>
<th>Min.</th>
<th>Max.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heater Current</td>
<td>1</td>
<td>1.9</td>
<td>2.3</td>
</tr>
<tr>
<td>Grid-No.1-to-Plate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Capacitance</td>
<td>-</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>Input</td>
<td>-</td>
<td>30</td>
<td>45</td>
</tr>
<tr>
<td>Output</td>
<td>-</td>
<td>5</td>
<td>10</td>
</tr>
</tbody>
</table>

Note 1: With 26 volts on heater.

* For tube protection, it is essential that the dc resistance in series with the plate supply and the grid-No.2 supply should be adequate to limit the short-circuit current to 0.5 ampere in either circuit.
NOTE 1: PINS WILL FIT A FLAT-PLATE GAUGE HAVING THICKNESS OF 1/4" AND FOUR HOLES 0.2140" ± 0.0005" SO LOCATED ON A 0.9710" ± 0.0005" DIAMETER CIRCLE THAT THE DISTANCE ALONG THE CHORD BETWEEN ANY TWO ADJACENT HOLE CENTERS IS 0.6875" ± 0.0005". GAUGE IS ALSO PROVIDED WITH A 7/16" DIAMETER HOLE CONCENTRIC WITH PIN CIRCLE FOR THE EXHAUST TIP.

NOTE 2: WHEN TUBE IS ROTATED ABOUT AXIS OF ITS BASE, THE MAXIMUM RADIAL DISTANCE BETWEEN ANY POINT ON THE BULB AND THE ROTATIONAL AXIS DOES NOT EXCEED 1-13/32".

SEPT. 15, 1949

TUBE DEPARTMENT
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY
AVERAGE PLATE CHARACTERISTICS
WITH EC1 AS VARIABLE

E_f = 26 VOLTS
DC GRID-NO2 VOLTS = 1200

DC PLATE (I_p) OR DC GRID-NO2 (I_C2) AMPERES

FEB. 22, 1949
TUBE DEPARTMENT
RADIO CORPORATION OF AMERICA, MARRISON, NEW JERSEY

92CM-7188
AVERAGE PLATE CHARACTERISTICS
WITH EC2 AS VARIABLE

E_p = 26 VOLTS
GRID-N^2 VOLTS = +100

DC PLATE VOLTS

DC PLATE AMPERES

FEB.23, 1949
TUBE DEPARTMENT
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY