



6DR7

DUAL TRIODE  
With High-Mu Unit and Low-Mu Unit

9-PIN MINIATURE TYPE

6DR7

GENERAL DATA

Electrical:

Heater, for Unipotential Cathodes:

Voltage. . . . . 6.3 ± 10% . . . . . ac or dc volts

Current. . . . . 0.9 . . . . . amp

Direct Interelectrode Capacitances (Approx.):<sup>0</sup>

|                                      | Unit No. 1 | Unit No. 2 |     |
|--------------------------------------|------------|------------|-----|
| Grid to plate. . . . .               | 4.5        | 8.5        | μμf |
| Grid to cathode and heater. . . . .  | 2.2        | 5.5        | μμf |
| Plate to cathode and heater. . . . . | 0.34       | 1          | μμf |

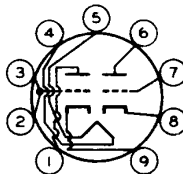
Characteristics, Class A<sub>1</sub> Amplifier:

|  | Unit No. 1 | Unit No. 2 |       |
|--|------------|------------|-------|
| Plate Voltage. . . . .   | 250        | 150        | volts |
| Grid Voltage. . . . .  | -3         | -17.5      | volts |
| Amplification Factor. . . . .                                      | 68         | 6          |       |
| Plate Resistance (Approx.) . . . . .                               | 40000      | 925        | ohms  |
| Transconductance. . . . .  | 1600       | 6500       | μmhos |
| Plate Current. . . . .   | 1.4        | 35         | ma    |
| Plate Current for plate volts = 60<br>and grid volts = 0 . . . . . | -          | 80         | ma    |
| Plate Current for grid volts = -24. . . . .                        | -          | 10         | ma    |
| Grid Voltage (Approx.) for plate<br>μa = 10. . . . .               | -5.5       | -          | volts |
| Grid Voltage (Approx.) for plate<br>μa = 50. . . . .               | -          | -44        | volts |

Mechanical:

- Operating Position . . . . . Any
- Maximum Overall Length . . . . . 2-5/8"
- Maximum Seated Length. . . . . 2-3/8"
- Length, Base Seat to Bulb Top (Excluding tip) . . . . . 2" ± 3/32"
- Diameter . . . . . 0.750" to 0.875"
- Dimensional Outline. . . . . See General Section
- Bulb . . . . . T6-1/2
- Base . . . . . Small-Button Noval 9-Pin (JEDEC No. E9-1)
- Basing Designation for BOTTOM VIEW . . . . . 9HF

- Pin 1 - Plate of Unit No. 2
- Pin 2 - Grid of Unit No. 2
- Pin 3 - Grid of Unit No. 2
- Pin 4 - Heater
- Pin 5 - Heater



- Pin 6 - Plate of Unit No. 1
- Pin 7 - Grid of Unit No. 1
- Pin 8 - Cathode of Unit No. 1
- Pin 9 - Cathode of Unit No. 2

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## DUAL TRIODE

### With High-Mu Unit and Low-Mu Unit

#### VERTICAL-DEFLECTION OSCILLATOR

*Values are for Unit No. 1*

##### Maximum Ratings, Design-Maximum Values:

*For operation in a 525-line, 30-frame system<sup>o</sup>*

|  |                  |      |       |
|--|------------------|------|-------|
| DC PLATE VOLTAGE . . . . .                 | 330              | max. | volts |
| PEAK NEGATIVE-PULSE GRID VOLTAGE . . . . . | 400              | max. | volts |
| CATHODE CURRENT:                           |                  |      |       |
| Peak . . . . .                             | 70               | max. | ma    |
| Average . . . . .                          | 20               | max. | ma    |
| PLATE DISSIPATION . . . . .                | 1                | max. | watt  |
| PEAK HEATER-CATHODE VOLTAGE:               |                  |      |       |
| Heater negative with respect to cathode.   | 200              | max. | volts |
| Heater positive with respect to cathode.   | 200 <sup>■</sup> | max. | volts |

##### Maximum Circuit Values:

Grid-Circuit Resistance:

|  |     |      |         |
|--|-----|------|---------|
| For grid-resistor-bias or cathode-bias operation . . . . . | 2.2 | max. | megohms |
|--|-----|------|---------|

#### VERTICAL-DEFLECTION AMPLIFIER

*Values are for Unit No. 2*

##### Maximum Ratings, Design-Maximum Values:

*For operation in a 525-line, 30-frame system<sup>o</sup>*

|  |                  |      |       |
|--|------------------|------|-------|
| DC PLATE VOLTAGE . . . . .                   | 275              | max. | volts |
| PEAK POSITIVE-PULSE PLATE VOLTAGE* . . . . . | 1500             | max. | volts |
| PEAK NEGATIVE-PULSE GRID VOLTAGE . . . . .   | 250              | max. | volts |
| CATHODE CURRENT:                             |                  |      |       |
| Peak . . . . .                               | 175              | max. | ma    |
| Average . . . . .                            | 50               | max. | ma    |
| PLATE DISSIPATION . . . . .                  | 7                | max. | watts |
| PEAK HEATER-CATHODE VOLTAGE:                 |                  |      |       |
| Heater negative with respect to cathode.     | 200              | max. | volts |
| Heater positive with respect to cathode.     | 200 <sup>■</sup> | max. | volts |

##### Maximum Circuit Values:

Grid-Circuit Resistance:

|  |     |      |         |
|--|-----|------|---------|
| For grid-resistor-bias or cathode-bias operation . . . . . | 2.2 | max. | megohms |
|--|-----|------|---------|

<sup>o</sup> Without external shield.

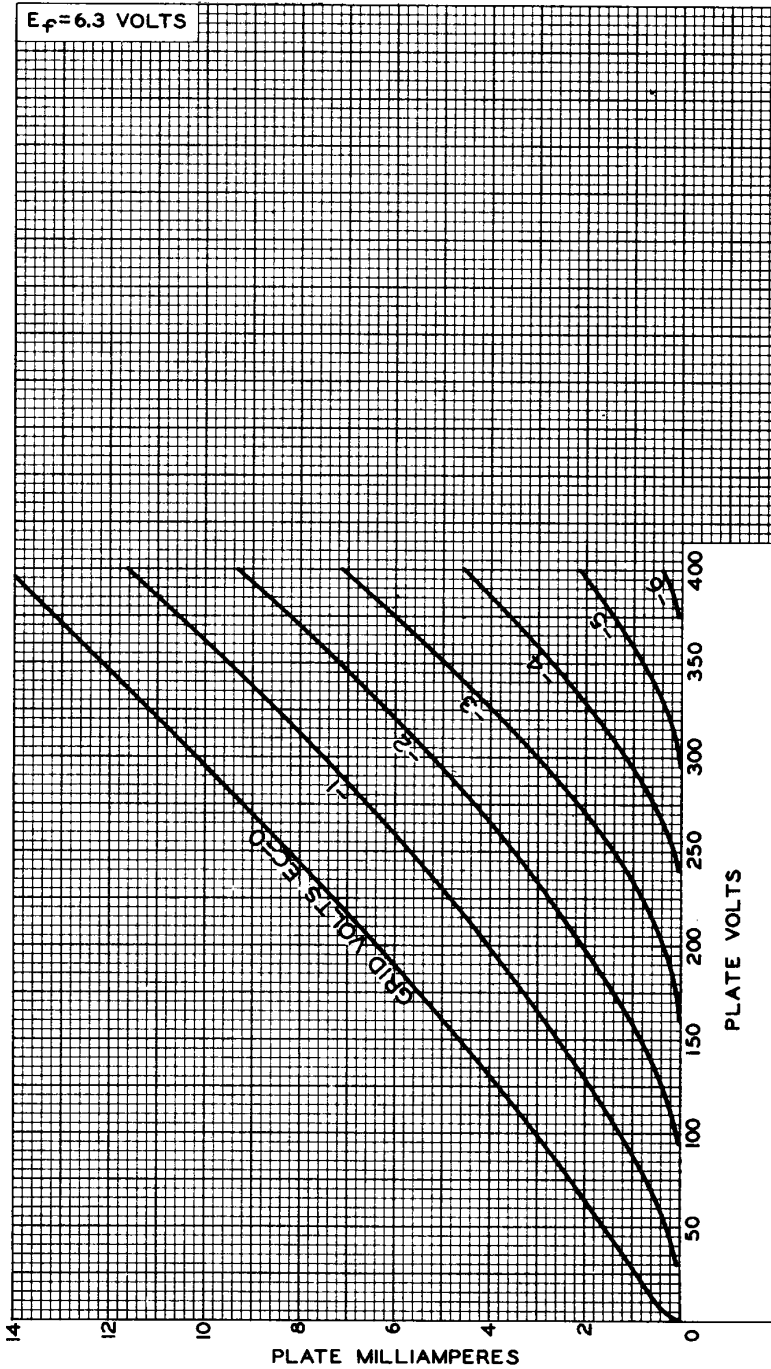
<sup>•</sup> As described in "Standards of Good Engineering Practice Concerning Television Broadcast Stations," Federal Communications Commission.

\* This rating is applicable where the duration of the voltage pulse does not exceed 15 per cent of one vertical scanning cycle. In a 525-line, 30-frame system, 15 per cent of one vertical scanning cycle is 2.5 milliseconds.

<sup>■</sup> The dc component must not exceed 100 volts.

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## AVERAGE PLATE CHARACTERISTICS Unit No.1



92CM-9912

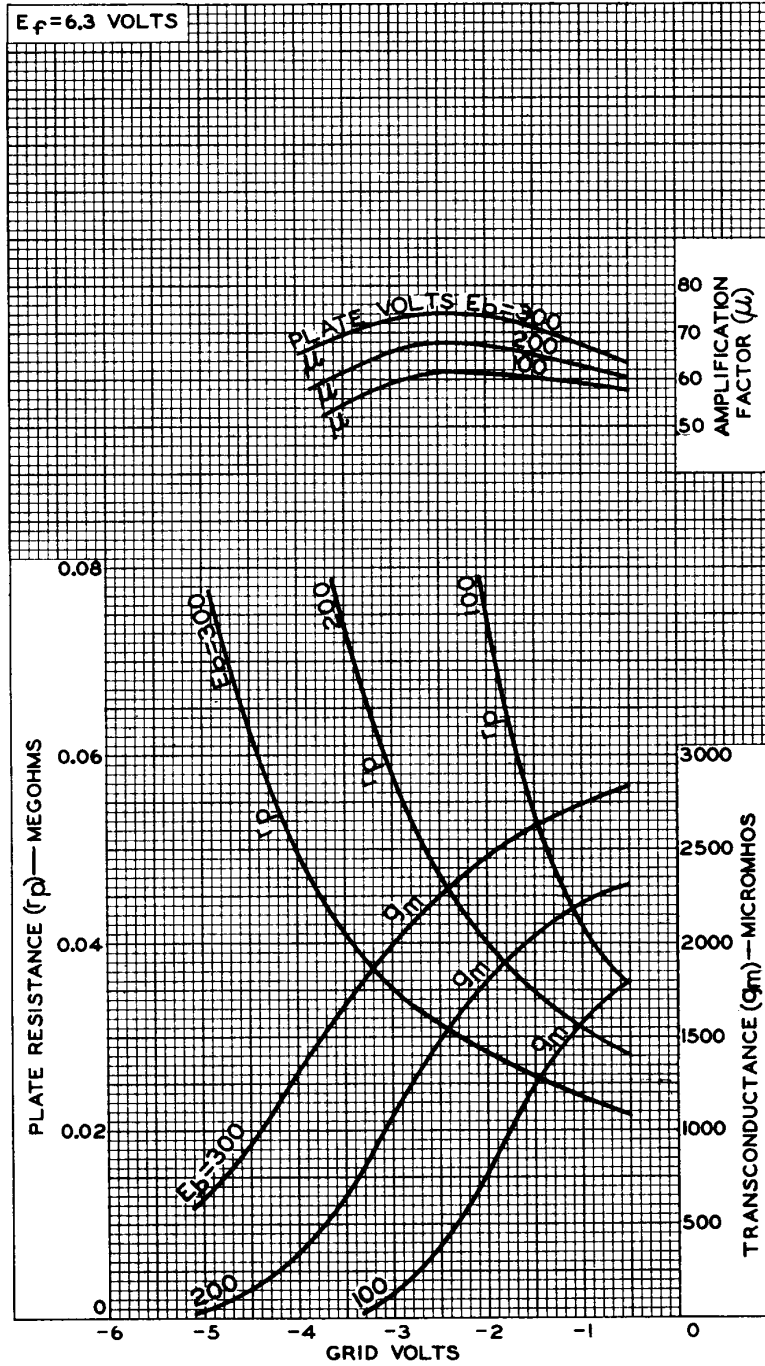


RADIO CORPORATION OF AMERICA  
Electron Tube Division  
Harrison, N. J.

DATA 2  
1-62

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## AVERAGE CHARACTERISTICS Unit No.1



92CM-9915R1

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Electron Tube Division

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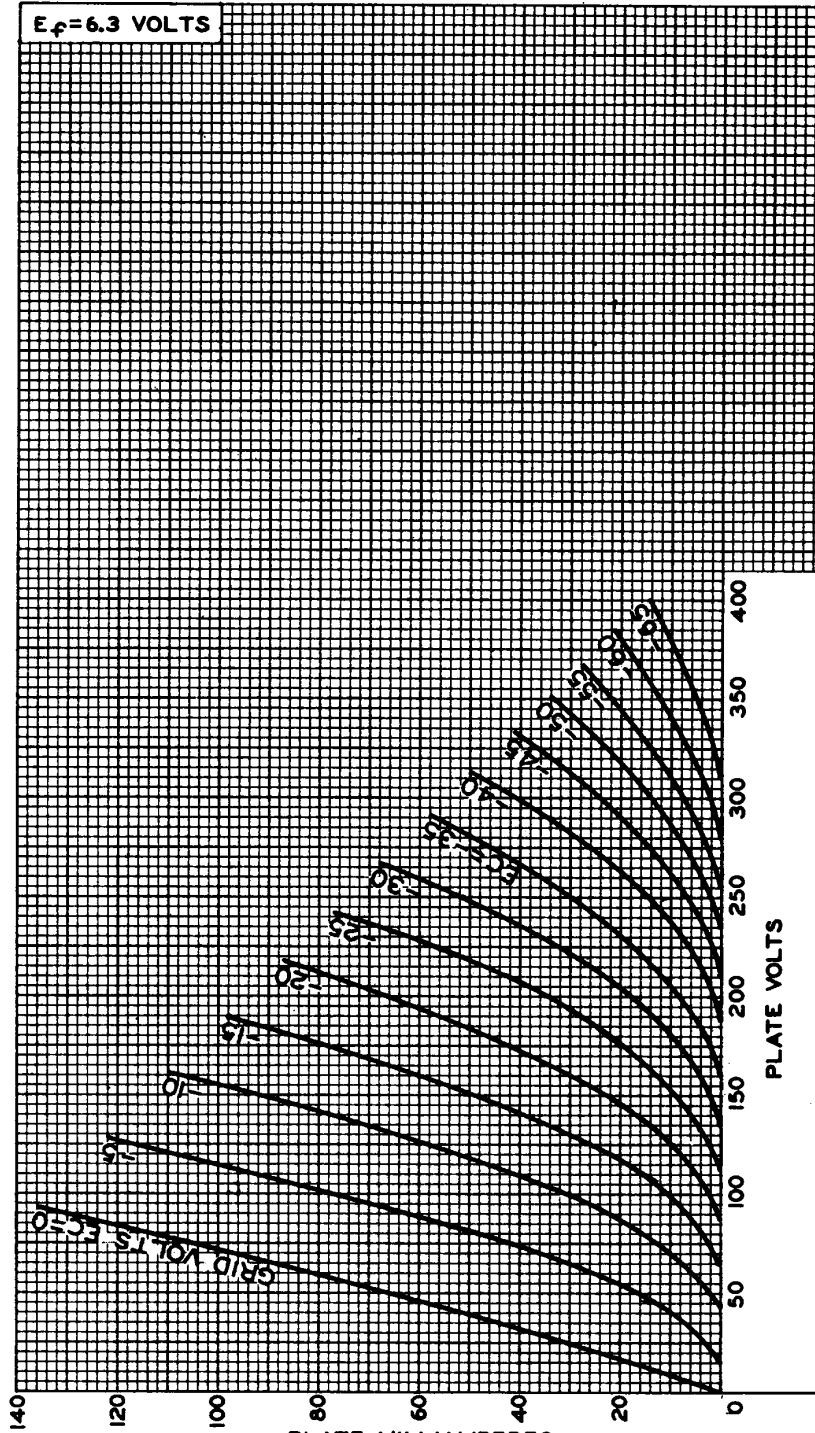




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AVERAGE PLATE CHARACTERISTICS  
UNIT No 2



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AVERAGE CHARACTERISTICS  
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