

6CM7

Medium-Mu Dual Triode

With Dissimilar Units

9-PIN MINIATURE TYPE

With Heater Having Controlled Warm-Up Time

GENERAL DATA

Electrical:

Heater, for Unipotential Cathodes:

| | | |
|----------------------------------|----------|-------|
| Voltage (AC or DC) | 6.3 | volts |
| Current | 0.6 ± 6% | amp ← |
| Warm-up time (Average) | 11 | sec |

Direct Interelectrode Capacitances (Approx.):^a

| | Unit No. 1 | Unit No. 2 | |
|---------------------------------|------------|------------|-----|
| Grid to plate | 3.8 | 3 | μμf |
| Grid to cathode and heater. . . | 2 | 3.5 | μμf |
| Plate to cathode and heater . . | 0.5 | 0.4 | μμf |

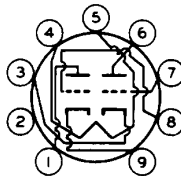
Characteristics, Class A₁ Amplifier:

| | Unit No. 1 | Unit No. 2 | |
|---|------------|------------|-------|
| Plate Voltage | 200 | 250 | volts |
| Grid Voltage. | -7 | -8 | volts |
| Amplification Factor. | 21 | 18 | |
| Plate Resistance (Approx.) | 10500 | 4100 | ohms |
| Transconductance. | 2000 | 4400 | μmhos |
| Plate Current | 5 | 20 | ma |
| Plate Current for grid volts = -10. | -1 | - | ma |
| Grid Voltage (Approx.) for plate μa = 10 | -14 | - | 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 <i>General Section</i> |
| Bulb. | T6-1/2 |
| Base. | Small-Button Noval 9-Pin (JEDEC No. E9-1) |
| Basing Designation for BOTTOM VIEW. | 9ES |

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



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

← Indicates a change.



6CM7

VERTICAL-DEFLECTION OSCILLATOR

Values are for Unit No. 1

→ **Maximum Ratings, Design-Maximum Values:**

For operation in a 525-line, 30-frame system^b

| | | |
|--|-----------------------|-------|
| DC PLATE VOLTAGE. | 550 max. | volts |
| PEAK NEGATIVE-PULSE GRID VOLTAGE. | 220 max. | volts |
| CATHODE CURRENT: | | |
| Peak. | 77 max. | ma |
| Average | 17 max. | ma |
| PLATE DISSIPATION | 1.45 max. | watts |
| PEAK HEATER-CATHODE VOLTAGE: | | |
| Heater negative with respect to cathode. | 200 max. | volts |
| Heater positive with respect to cathode. | 200 ^c max. | volts |

Maximum Circuit Values:

| | | |
|--|----------|---------|
| Grid-Circuit Resistance: | | |
| For fixed-bias, 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^b

| | | |
|--|-----------------------|-------|
| DC PLATE VOLTAGE. | 550 max. | volts |
| PEAK POSITIVE-PULSE PLATE VOLTAGE ^d | 2200 max. | volts |
| PEAK NEGATIVE-PULSE GRID VOLTAGE. | 220 max. | volts |
| CATHODE CURRENT: | | |
| Peak. | 77 max. | ma |
| Average | 22 max. | ma |
| PLATE DISSIPATION | 6 max. | watts |
| PEAK HEATER-CATHODE VOLTAGE: | | |
| Heater negative with respect to cathode. | 200 max. | volts |
| Heater positive with respect to cathode. | 200 ^c max. | volts |

Maximum Circuit Values:

| | | |
|-------------------------------------|----------|---------|
| Grid-Circuit Resistance: | | |
| For fixed-bias operation. | 1 max. | megohm |
| For cathode-bias operation. | 2.5 max. | megohms |

^a Without external shield.

^b As described in "Standards of Good Engineering Practice Concerning Television Broadcast Stations," Federal Communications Commission.

^c The dc component must not exceed 100 volts.

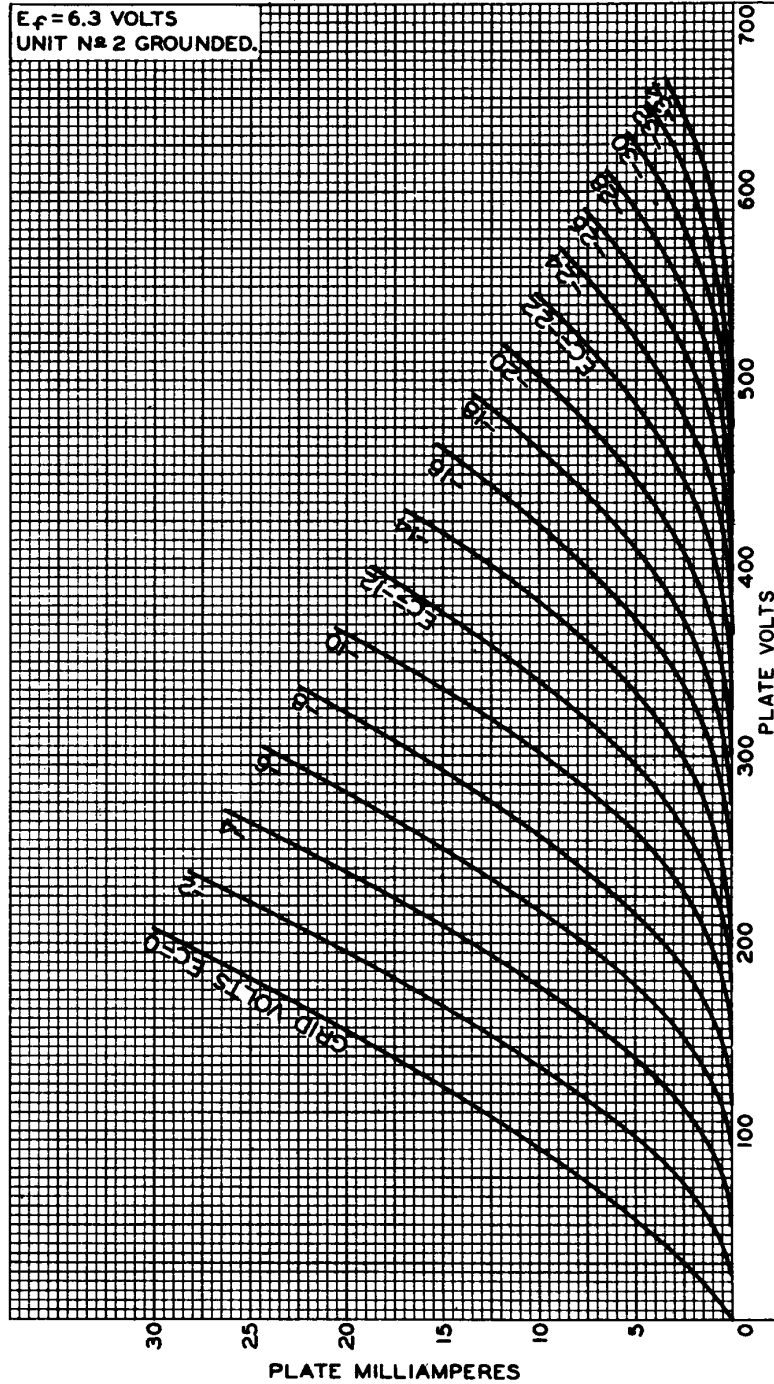
^d This rating is applicable where the duration of the voltage pulse does not exceed 15 per cent of one vertical scanning cycle. In a 525-line, 30-frame system, 15 per cent of one vertical scanning cycle is 2.5 milliseconds.

→ Indicates a change.



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AVERAGE PLATE CHARACTERISTICS Unit No.1



92CM-8617

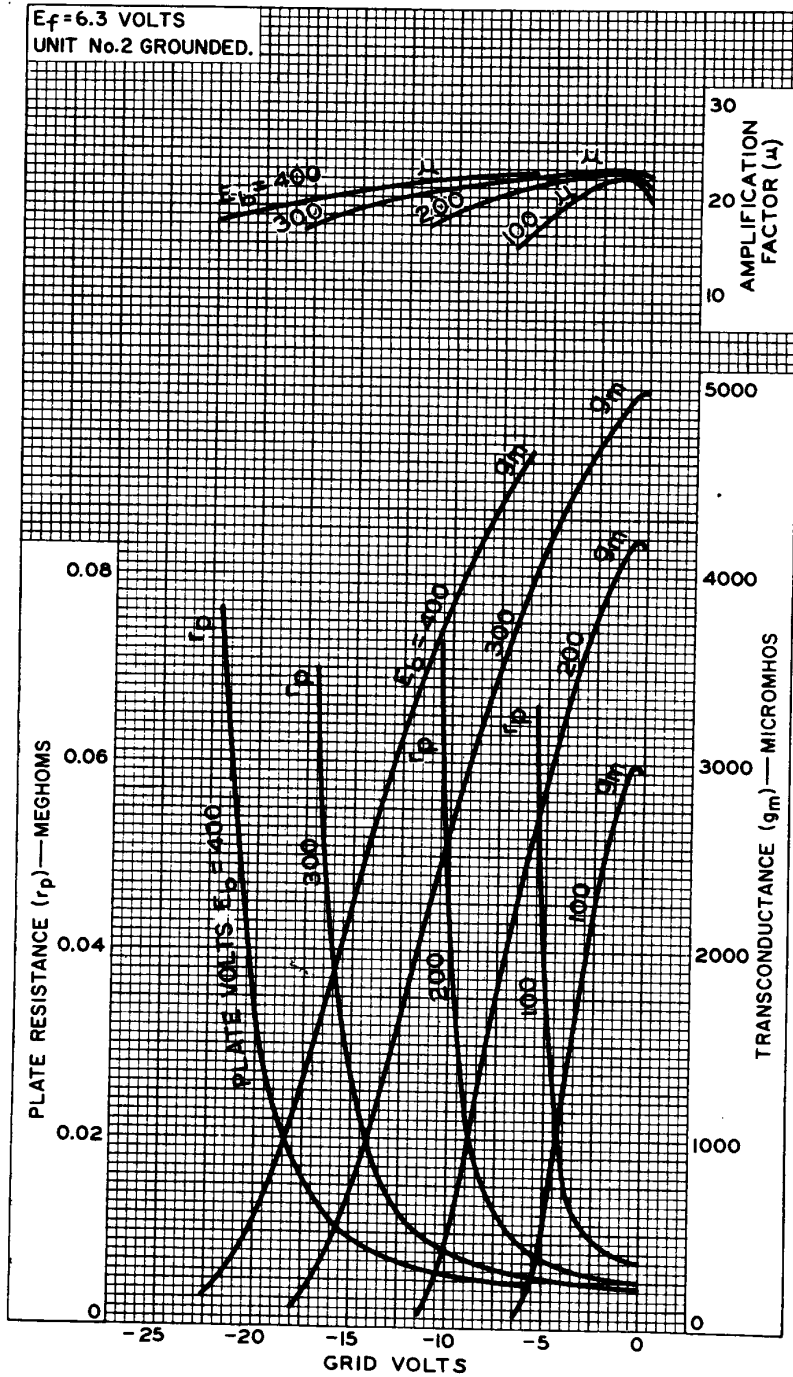


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DATA 2
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AVERAGE CHARACTERISTICS Unit No.1



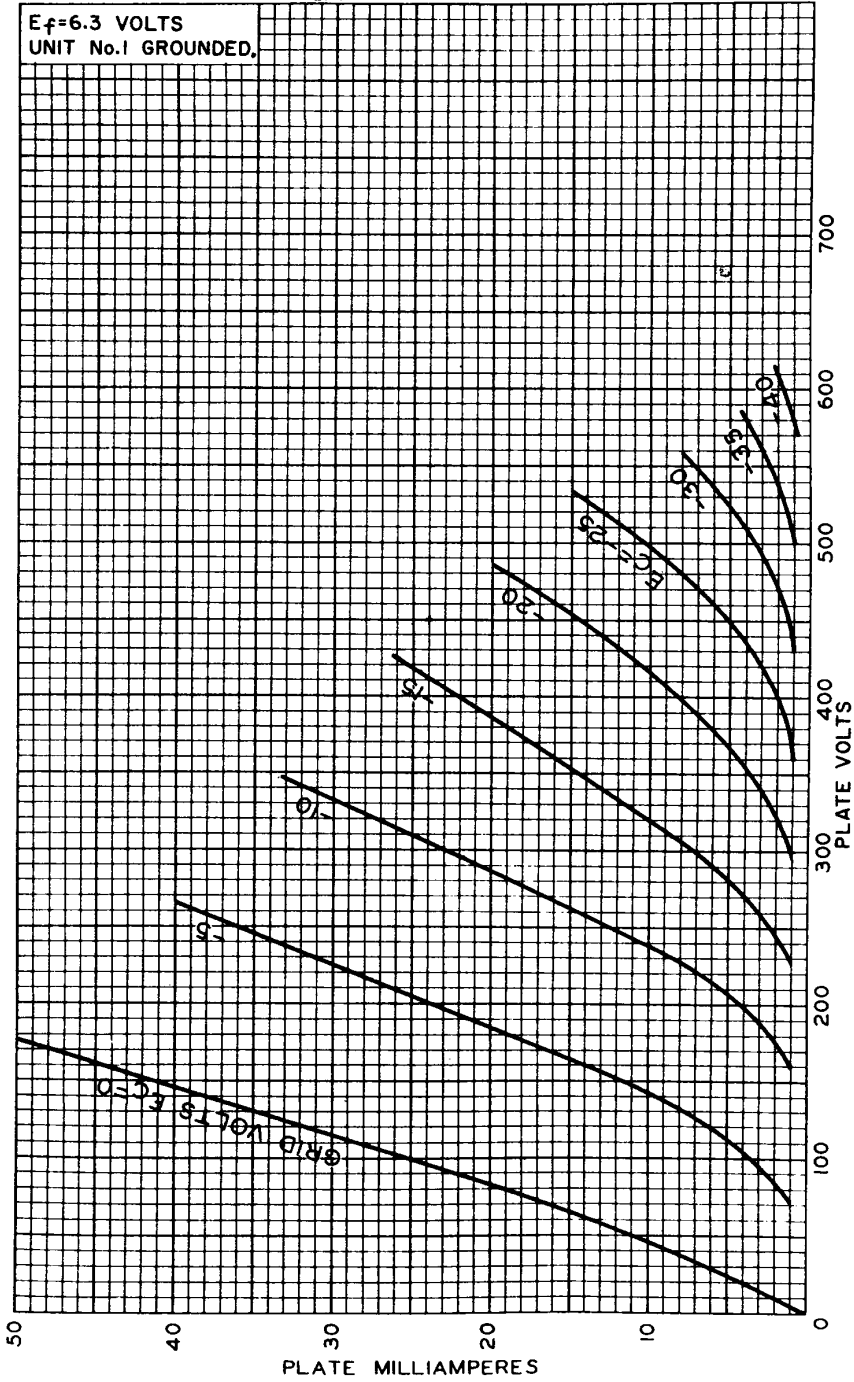
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AVERAGE PLATE CHARACTERISTICS Unit No.2



92CM-8615

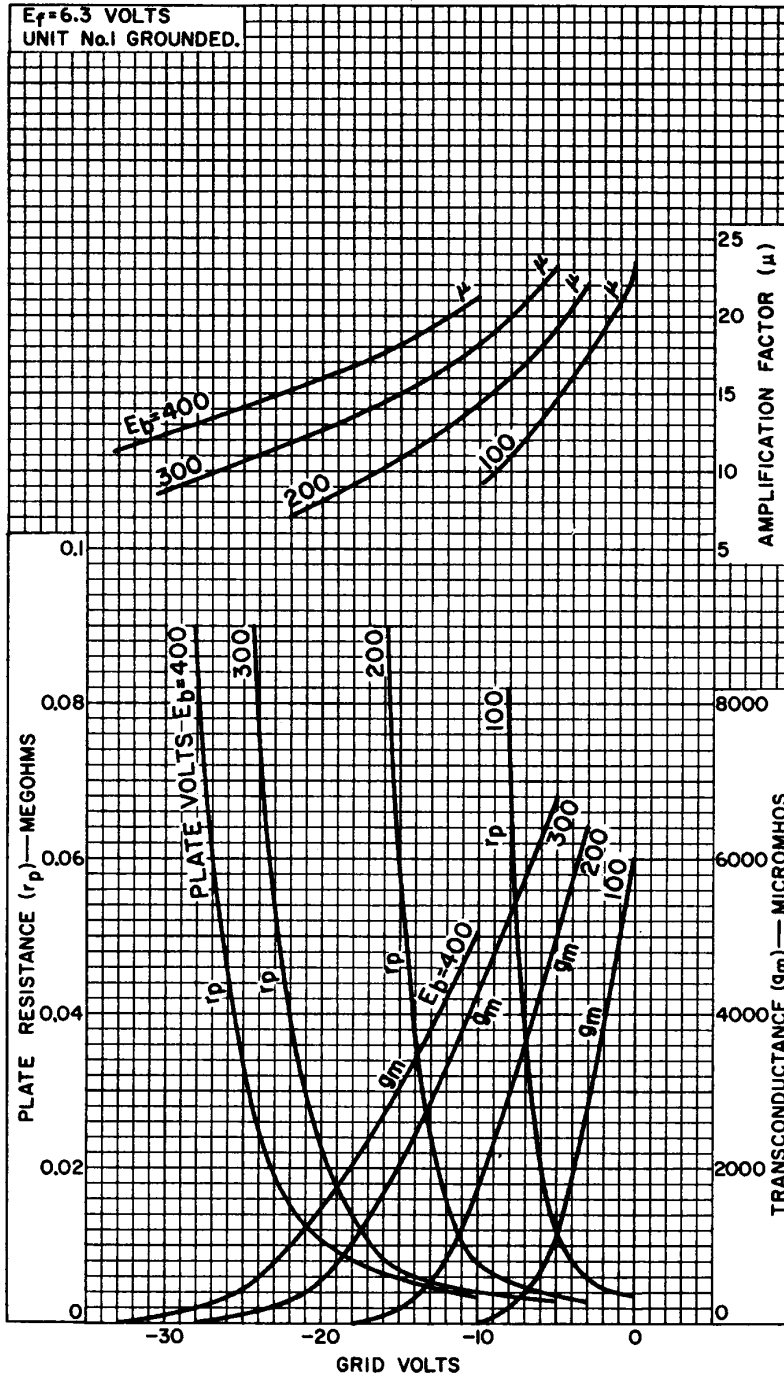


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DATA 3
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AVERAGE CHARACTERISTICS Unit No.2



92CM-8613R1

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