



6C4

MEDIUM-MU TRIODE

For use in FM and other HF circuits

GENERAL DATA

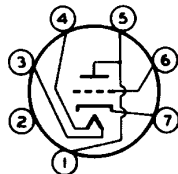
Electrical:

| | | |
|--|------|------------------|
| Heater, for Unipotential Cathode: | | |
| Voltage | 6.3 | ac or dc volts |
| Current | 0.15 | amp |
| Direct Interelectrode Capacitances: ^o | | |
| Grid to plate | 1.6 | $\mu\mu\text{f}$ |
| Grid to cathode and heater | 1.8 | $\mu\mu\text{f}$ |
| Plate to cathode and heater | 1.3 | $\mu\mu\text{f}$ |

Mechanical:

| | | |
|---|---|---|
| Mounting Position | Any | |
| Maximum Overall Length | 2-1/8" | |
| Maximum Seated Length | 1-7/8" | ← |
| Length, Base Seat to Bulb Top (Excluding tip) | 1-1/2" \pm 3/32" | ← |
| Maximum Diameter | 3/4" | |
| Bulb | T-5-1/2 | |
| Base | Small-Button Miniature 7-Pin (JETEC No. E7-1) | ← |
| Basing Designation for BOTTOM VIEW | 6BG | |

Pin 1 - Plate
 Pin 2 - Internal Connection
 Do Not Use
 Pin 3 - Heater



Pin 4 - Heater
 Pin 5 - Plate
 Pin 6 - Grid
 Pin 7 - Cathode

AMPLIFIER - Class A₁

Maximum Ratings, Design-Center Values:

| | | |
|---|-----------------------|-------|
| PLATE VOLTAGE | 300 max. | volts |
| PLATE DISSIPATION | 3.5 max. | watts |
| PEAK HEATER-CATHODE VOLTAGE: | | |
| Heater negative with respect to cathode | 200 max. | volts |
| Heater positive with respect to cathode | 200 [■] max. | volts |

Characteristics:

| | | | |
|--------------------------------------|------|------|------------------|
| Plate Voltage | 100 | 250 | volts |
| Grid Voltage | 0 | -8.5 | volts |
| Amplification Factor | 19.5 | 17 | |
| Plate Resistance (Approx.) | 6250 | 7700 | ohms |
| Transconductance | 3100 | 2200 | μmhos |
| Plate Current | 11.8 | 10.5 | ma |

Maximum Circuit Values:

| | | |
|--------------------------------------|-----------|--------|
| Grid-Circuit Resistance: | | |
| For fixed-bias operation | 0.25 max. | megohm |
| For cathode-bias operation | 1.0 max. | megohm |

^o With no external shield.

[■]: See next page.

← indicates a change.

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→ Typical Operation as Resistance-Coupled Amplifier:

See *RESISTANCE-COUPLED AMPLIFIER CHART No. 10*
at front of this Section.

RF POWER AMPLIFIER & OSCILLATOR—Class C Telegraphy

Maximum Ratings, Design-Center Values:

| | | |
|-----------------------------|----------|-------|
| DC PLATE VOLTAGE | 300 max. | volts |
| DC GRID VOLTAGE | -50 max. | volts |
| DC PLATE CURRENT | 25 max. | ma |
| DC GRID CURRENT | 8 max. | ma |
| PLATE DISSIPATION | 5 max. | watts |

→ PEAK HEATER-CATHODE VOLTAGE:

| | | |
|---|-----------------------|-------|
| Heater negative with respect to cathode . | 200 max. | volts |
| Heater positive with respect to cathode . | 200 [■] max. | volts |

Typical Operation at Frequencies up to 50 Mc:*

| | | |
|---|------|-------|
| DC Plate Voltage | 300 | volts |
| DC Grid Voltage | -27 | volts |
| DC Plate Current | 25 | ma |
| DC Grid Current (Approx.) | 7 | ma |
| Driving Power (Approx.) | 0.35 | watt |
| Useful Power Output (Approx.) | 5.5 | watts |

■ The dc component must not exceed 100 volts.

* Approximately 2.5 watts can be obtained when the 6C4 is used at 150 Mc as an oscillator with grid resistor of 10000 ohms and maximum rated input.

→ indicates a change.

NOV. 5, 1954

TUBE DIVISION
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

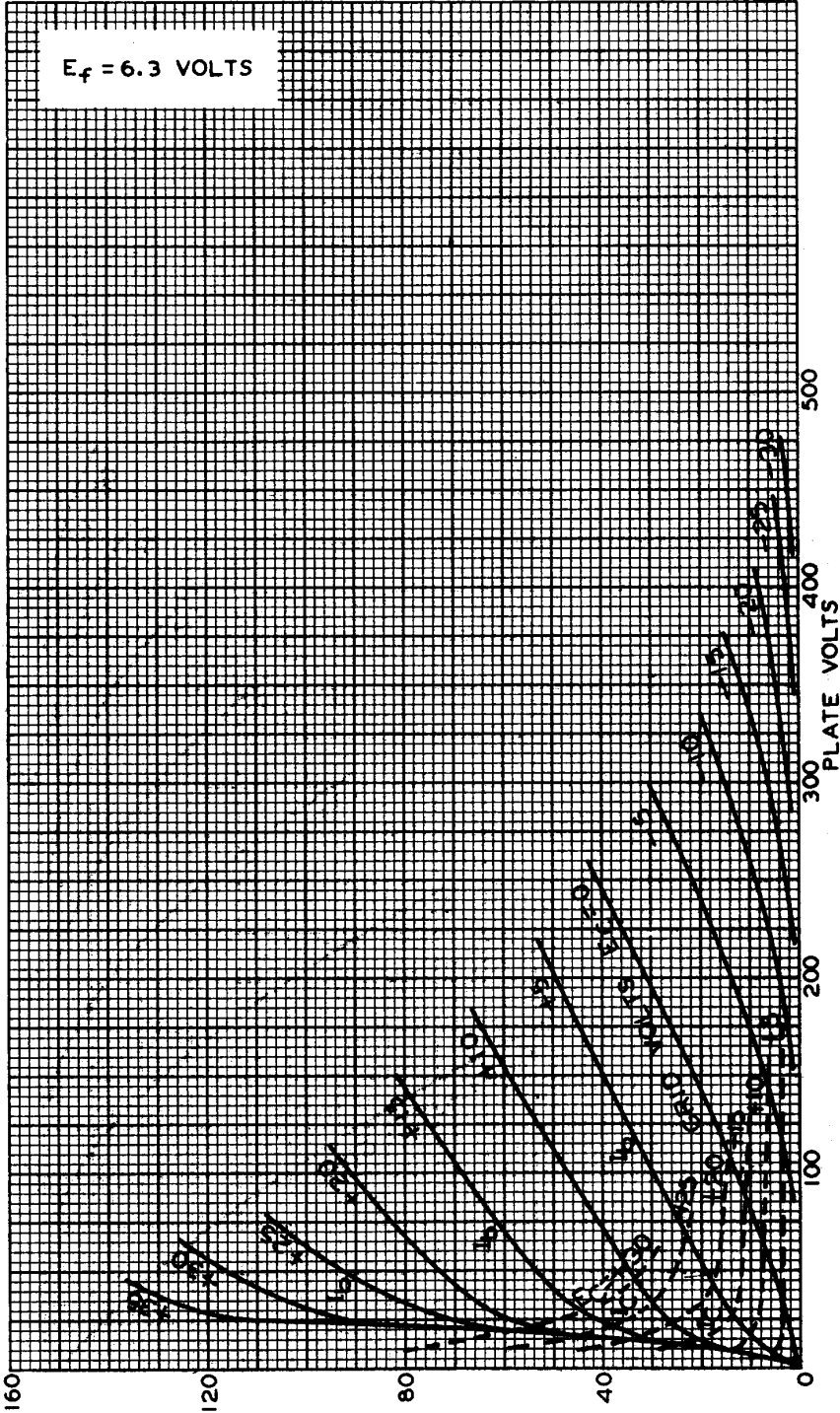
DATA 1



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AVERAGE PLATE CHARACTERISTICS



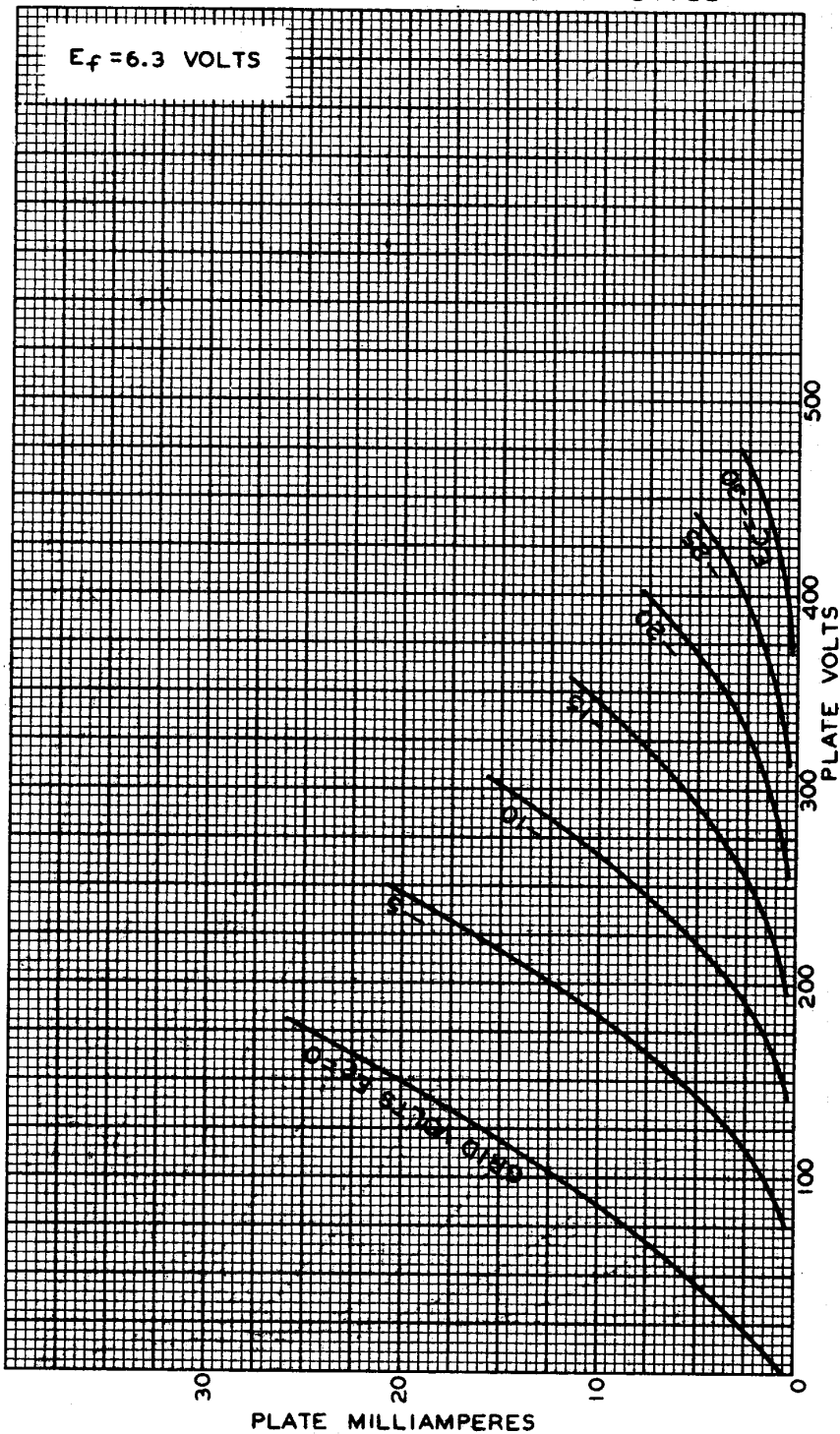
MARCH 16, 1942
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AVERAGE PLATE CHARACTERISTICS



MARCH 14, 1942

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