



6C4

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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:⁰Grid to plate 1.6 μf Grid to cathode and heater 1.8 μf Plate to cathode and heater 1.3 μf

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

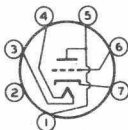
Base Small-Button Miniature 7-Pin (JETEC No. E7-1)

Basing Designation for BOTTOM VIEW 6BG

Pin 1-Plate

Pin 2-Internal Con-
nection
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

⁰ With no external shield.[■] See next page.

← indicates a change.

NOV. 5, 1954

TUBE DIVISION
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

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MEDIUM-MU TRIODE

→ 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.



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AVERAGE PLATE CHARACTERISTICS

$E_f = 6.3$ VOLTS

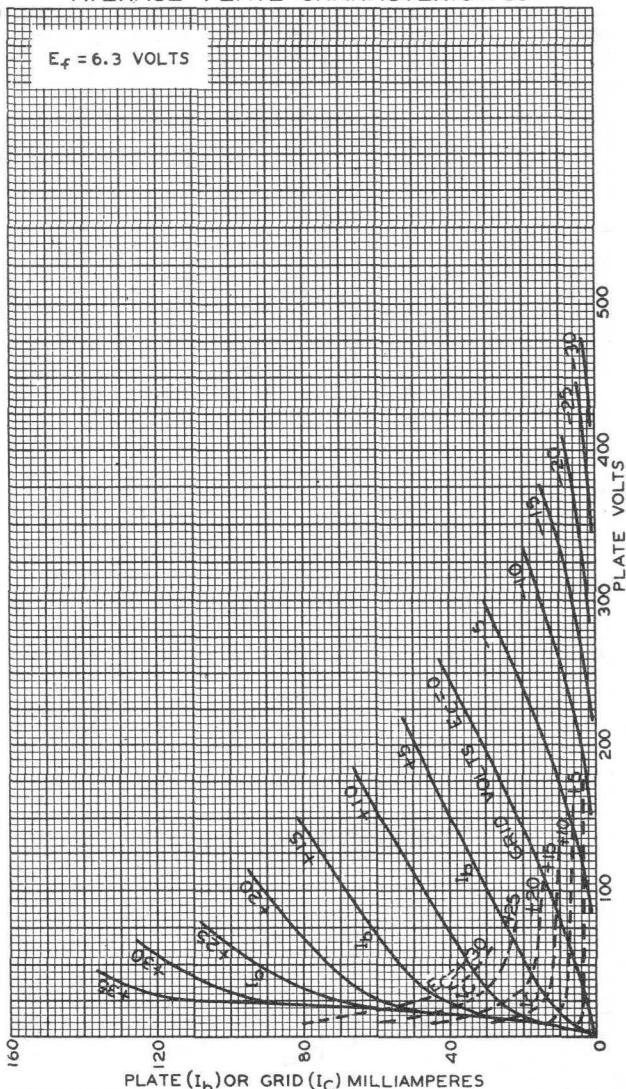


PLATE (I_b) OR GRID (I_c) MILLIAMPERES

MARCH 16, 1942

RCA RADOTRON DIVISION
RCA MANUFACTURING COMPANY, INC.

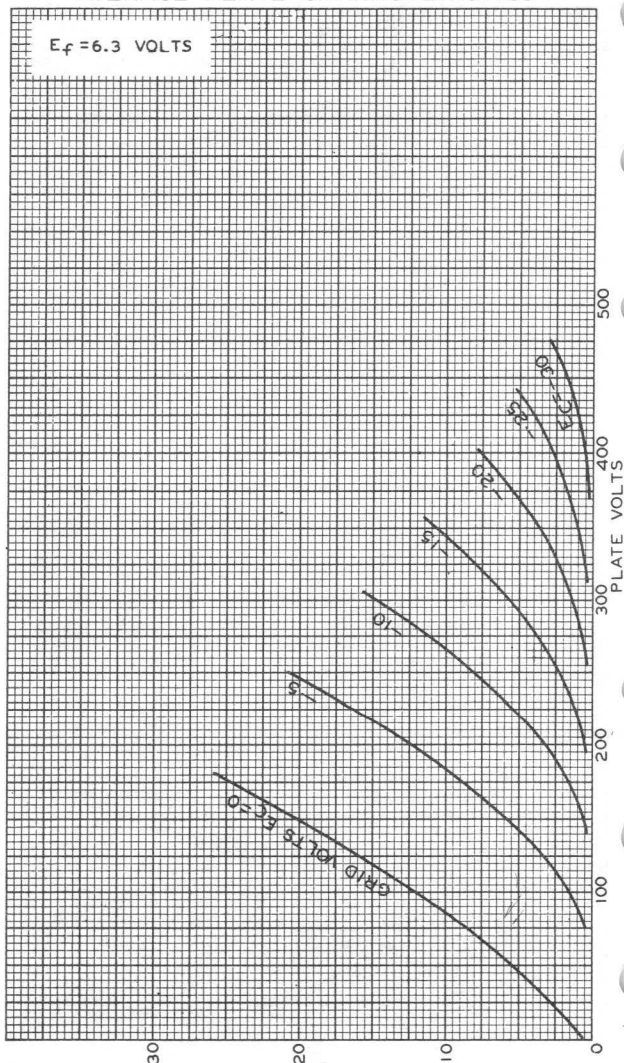
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AVERAGE PLATE CHARACTERISTICS



MARCH 14, 1942

PLATE MILLIAMPERES

RCA RADOTRON DIVISION
RCA MANUFACTURING COMPANY, INC.

92C-6377