

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

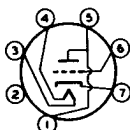
Direct Interelectrode Capacitances:⁰

Grid 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 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 ^a 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.

^a See next page.

← indicates a change.

6CA



6C4

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.

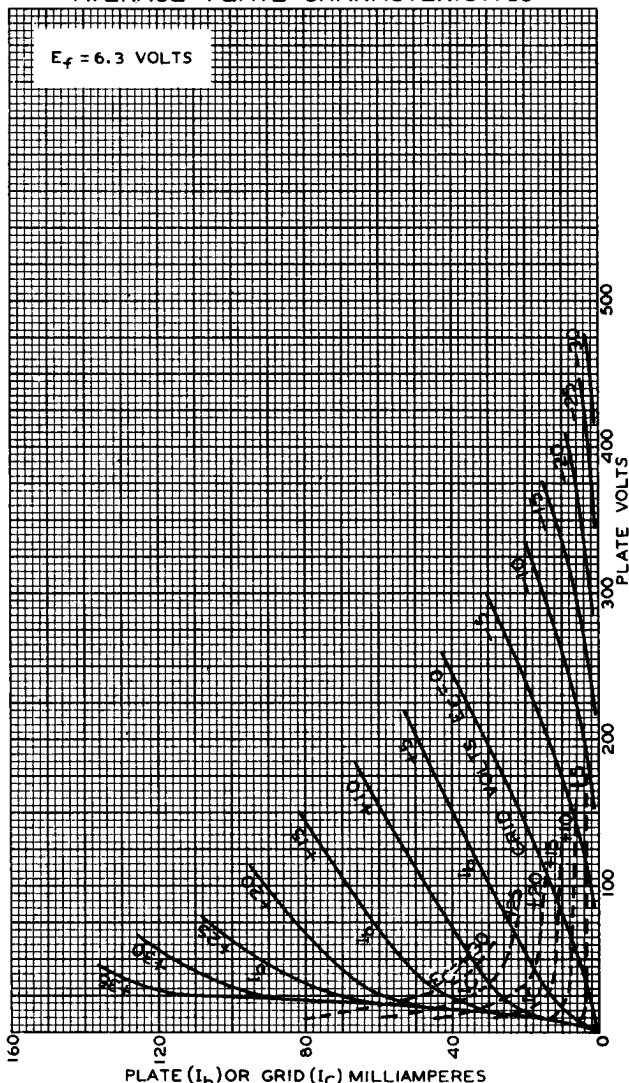
→ Indicates a change.



6C4

6C4

AVERAGE PLATE CHARACTERISTICS



MARCH 16, 1942

RCA RADOTRON DIVISION
RCA MANUFACTURING COMPANY, INC.

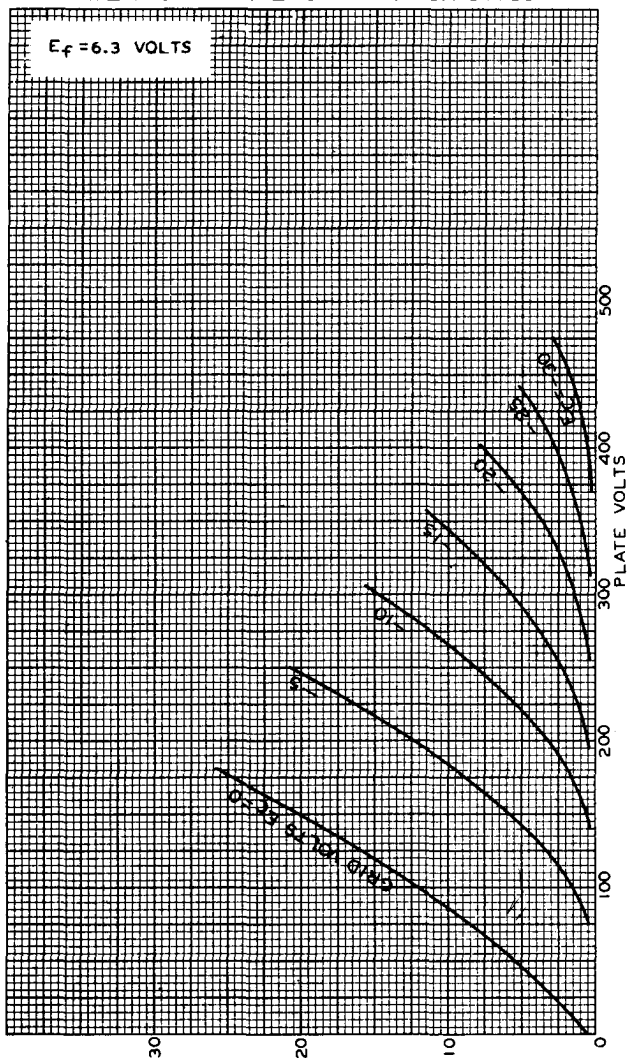
92C-6378

6CA



6C4

AVERAGE PLATE CHARACTERISTICS



MARCH 14, 1942

RCA RADOTRON DIVISION
RCA MANUFACTURING COMPANY, INC.

92C-6377