

**6AF4****6AF4****UHF OSCILLATOR TRIODE**

MINIATURE TYPE

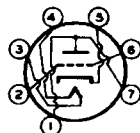
GENERAL DATA**Electrical:**

Heater, for Unipotential Cathode:

Voltage 6.3 ac or dc volts
Current 0.225 amp

Resonant Frequency (Approx.) 1000 Mc

Direct Interelectrode Capacitances (No external shield):

Grid to Plate 1.9 $\mu\mu\text{f}$
Grid to Cathode and Heater 2.2 $\mu\mu\text{f}$
Plate to Cathode and Heater 0.45 $\mu\mu\text{f}$ **Characteristics - Class A₁ Amplifier:**Plate Voltage 80 100 volts
Cathode-Bias Resistor 150 150 ohms
Amplification Factor 15 16
Plate Resistance 2270 2130 ohms
Transconductance 6600 7500 μmhos
Plate Current 16 20 ma**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 7DKPin 1 - Plate
Pin 2 - Grid
Pin 3 - Heater
Pin 4 - HeaterPin 5 - Cathode
Pin 6 - Grid
Pin 7 - Plate**OSCILLATOR IN UHF TELEVISION RECEIVERS****Maximum Ratings, Design-Center Values:**DC PLATE VOLTAGE 150 max. volts
DC GRID VOLTAGE -50 max. volts
DC GRID CURRENT 8 max. ma
PLATE INPUT 2.5 max. watts
PLATE DISSIPATION 2.25 max. watts
DC CATHODE CURRENT 28 max. ma
PEAK HEATER-CATHODE VOLTAGE: Δ
Heater negative with respect to cathode . . . 80 max. volts
Heater positive with respect to cathode . . . 80 max. volts Δ : See next page.

JULY 1, 1952

TUBE DEPARTMENT

TENTATIVE DATA

RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

6AF4**6AF4****UHF OSCILLATOR TRIODE****Typical Operation as Oscillator at 950 Mc:**

DC Plate Voltage	100	volts
DC Grid Voltage	-4	volts
<i>From a grid resistor of</i>	10000	ohms
DC Plate Current	22	ma
DC Grid Current (Approx.)	400	μ amp
Useful Power Output	160	milliwatts

Maximum Circuit Values:**Grid-Circuit Resistance:**

- For fixed-bias operation Not recommended
- For cathode-bias operation 0.5 max. megohm

♦ It is recommended that the heater be kept at cathode potential to minimize the effects of variation in the heater-to-cathode capacitance between tubes.

OPERATING CONSIDERATIONS

The *mounting arrangement* should insure that the tube is held secure by its socket. Unless this recommendation is followed, the generated frequency may change by as much as 10 megacycles per second. Use of a conventional miniature tube shield and external clamping arrangement are recommended.

The *base pins* of the 6AF4 fit the miniature 7-contact socket. The *socket* should be of the mica-filled, rubber, or ceramic type.

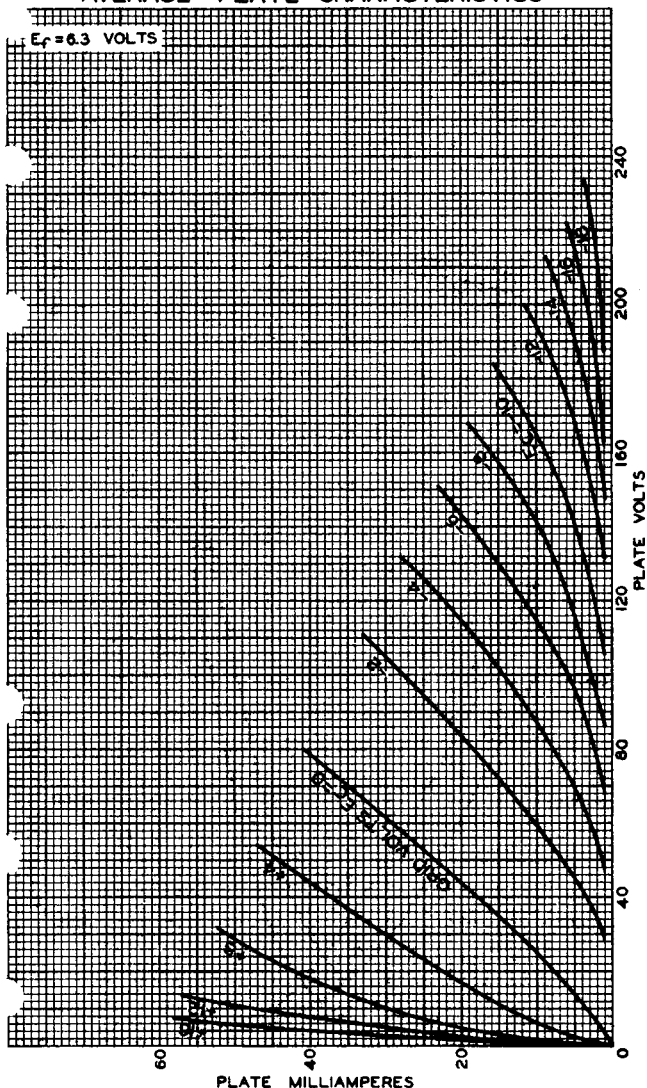


6AF4

6AF4

AVERAGE PLATE CHARACTERISTICS

$E_f = 6.3$ VOLTS



FEB. 20, 1952

TUBE DEPARTMENT
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

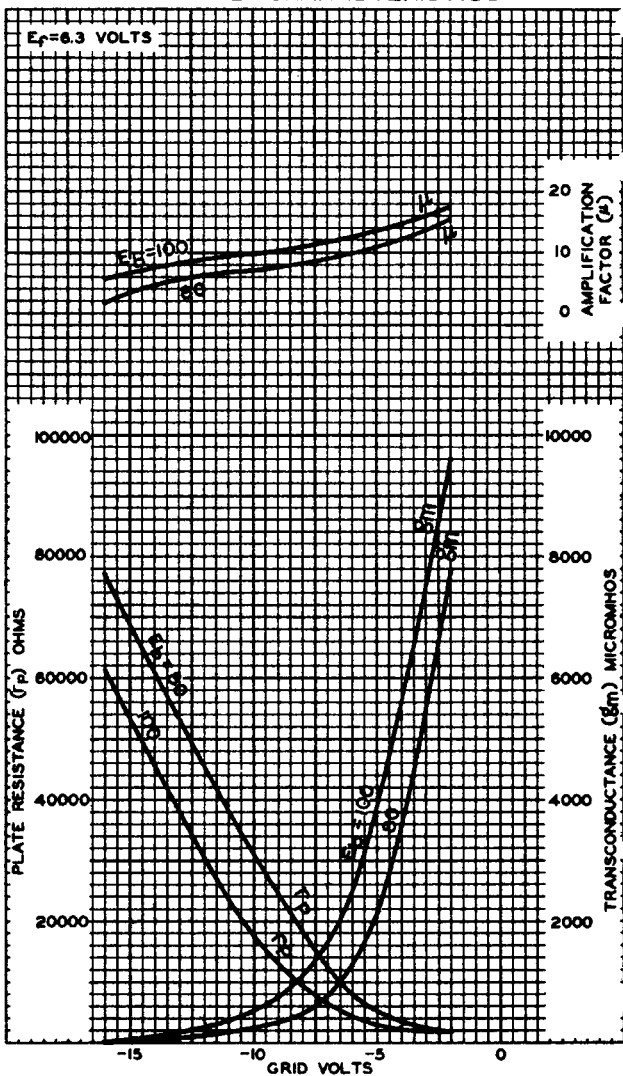
92CM-7756

6AF4



AVERAGE CHARACTERISTICS

$E_f = 6.3$ VOLTS



FEB. 26, 1952

TUBE DEPARTMENT
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

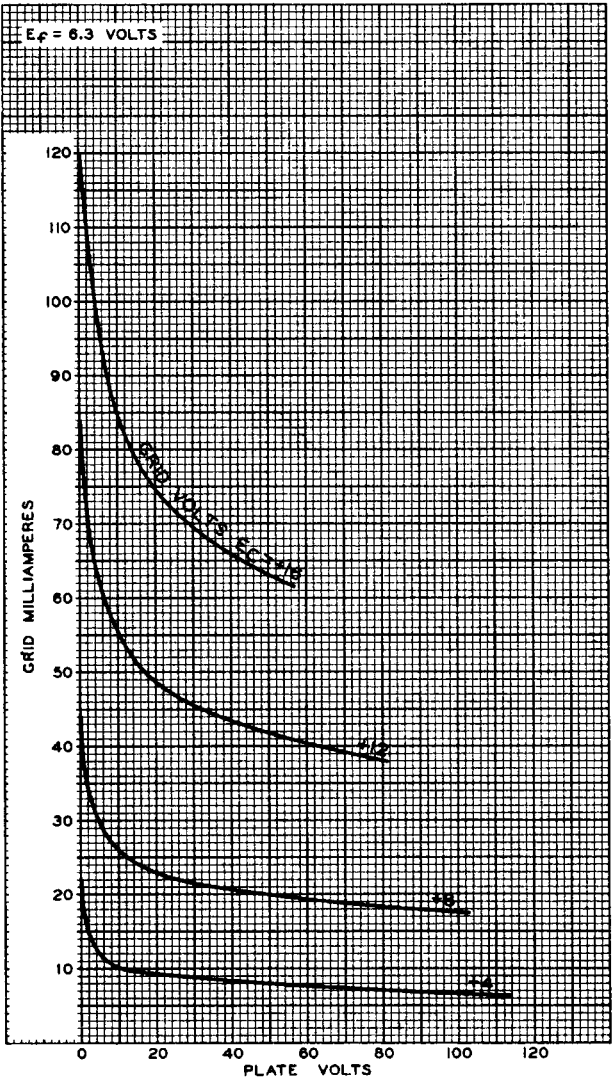
92CM-7756



6AF4

6AF4

AVERAGE CHARACTERISTICS

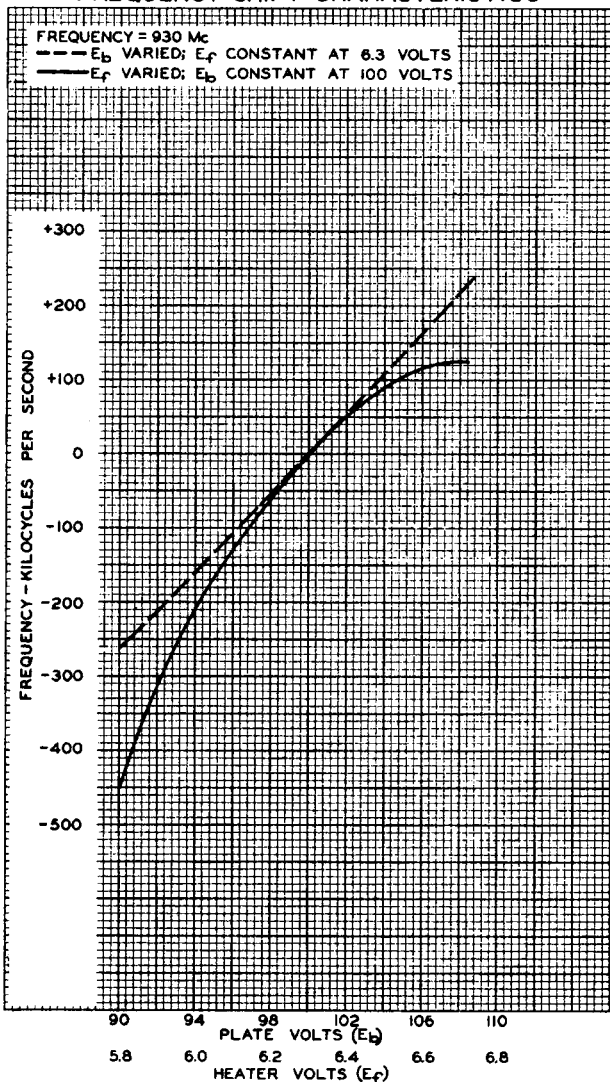


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FREQUENCY SHIFT CHARACTERISTICS



FEB. 29, 1952

TUBE DEPARTMENT
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

92CM-7762



6AF4

MEDIUM-MU TRIODE

MINIATURE TYPE

For UHF TV service

6AF4

The 6AF₄ is the same as the 6AF₄-A except for the following mechanical dimensions:

Maximum Overall Length	2-1/8"
Maximum Seated Length	1-7/8"
Length, Base Seat to Bulb Top (Excluding tip).	1-1/2" ± 3/32"