



6AW8

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HIGH-MU TRIODE - SHARP-CUTOFF PENTODE

9-PIN MINIATURE TYPE
*Intended for use in equipment having
 series heater-string arrangement*

GENERAL DATA

Electrical:

Heater, for Unipotential Cathodes:

Voltage	6.3	ac or dc volts
Current	0.6	amp
Warm-up time (Average)	11	sec

For definition of heater warm-up time and method of determining it, see sheet HEATER WARM-UP TIME MEASUREMENT at front of this Section.

Direct Interelectrode Capacitances:

	Without External Shield	With External Shield ^o	
<i>Triode Unit:</i>			
Grid to plate	2.2	2.2	$\mu\mu f$
Grid to cathode and heater	3.2	3.4	$\mu\mu f$
Plate to cathode and heater	0.32	1.7	$\mu\mu f$
<i>Pentode Unit:</i>			
Grid No.1 to plate	0.036 max.	0.03 max.	$\mu\mu f$
Grid No.1 to cathode & grid No.3 & internal shield, grid No.2, and heater	11	11	$\mu\mu f$
Plate to cathode & grid No.3 & internal shield, grid No.2, and heater	2.8	3.6	$\mu\mu f$
Triode grid to pentode plate	0.03 max.	0.008 max.	$\mu\mu f$
Pentode grid No.1 to triode plate	0.008 max.	0.005 max.	$\mu\mu f$
Pentode plate to triode plate	0.2 max.	0.05 max.	$\mu\mu f$

Mechanical:

Mounting Position	Any
Maximum Overall Length	2-5/8"
Maximum Seated Length	2-3/8"
Length, Base Seat to Bulb Top (Excluding tip)	2" \pm 3/32"
Maximum Diameter	7/8"
Bulb	T-6-1/2

^o With external shield JETEC No.315 connected to cathode of unit under test.

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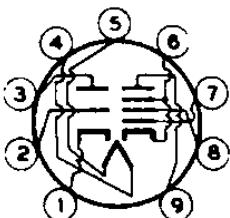
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HIGH-MU TRIODE— SHARP-CUTOFF PENTODE

Base Small-Button Noval 9-Pin (JETEC No.E9-1)
 Basing Designation for BOTTOM VIEW 9DX

Pin 1 - Triode
 Cathode
 Pin 2 - Triode
 Grid
 Pin 3 - Triode
 Plate
 Pin 4 - Heater
 Pin 5 - Heater

Pin 6 - Pent. Cath.,
 Grid No.3,
 Internal
 Shield
 Pin 7 - Pentode
 Grid No.1
 Pin 8 - Pentode
 Grid No.2
 Pin 9 - Pent. Plate



TRIODE UNIT - Class A₁ Amplifier

Maximum Ratings, Design-Center Values:

PLATE VOLTAGE	300	max.	volts
PLATE DISSIPATION	1	max.	watt
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode	200	max.	volts
Heater positive with respect to cathode	200 [▲]	max.	volts

Typical Operation and Characteristics:

Plate Voltage	200	volts
Grid Voltage	-2	volts
Amplification Factor	70	
Plate Resistance (Approx.)	17500	ohms
Transconductance	4000	μ hos
Grid Voltage (Approx.) for plate current of 10 μ amp	-5	volts
Plate Current	4	ma

Maximum Circuit Values:

Grid-Circuit Resistance:			
For fixed-bias operation	0.5	max.	megohm
For cathode-bias operation	1.0	max.	megohm

PENTODE UNIT - Class A₁ Amplifier

Maximum Ratings, Design-Center Values:

PLATE VOLTAGE	300	max.	volts
GRID-No.2 (SCREEN) SUPPLY VOLTAGE	300	max.	volts
GRID-No.2 VOLTAGE See Grid-No.2 Input Rating Chart at front of Receiving Tube Section			
GRID-No.1 (CONTROL-GRID) VOLTAGE:			
Negative bias value	50	max.	volts
Positive bias value	0	max.	volts
PLATE DISSIPATION	3	max.	watts

[▲]: See next page.



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GRID-No.2 INPUT:

For grid-No.2 voltages up to 150 volts 1 max. watt
For grid-No.2 voltages between 150
and 300 volts. See Grid-No.2 Input Rating Chart
at front of Receiving Tube Section

PEAK HEATER-CATHODE VOLTAGE:

Heater negative with respect to cathode 200 max. volts
Heater positive with respect to cathode 200^A max. volts

Typical Operation and Characteristics:

Plate Voltage.	200	volts
Grid-No.2 Voltage.	150	volts
Grid-No.1 Voltage.	0	volts
Cathode-Bias Resistor.	180	ohms
Plate Resistance (Approx.)	0.4	megohm
Transconductance	9000	μ mhos
Grid-No.1 Voltage (Approx.) for plate current of 10 μ amp	-10	volts
Plate Current.	13	ma
Grid-No.2 Current.	3.5	ma

Maximum Circuit Values:

Grid-No.1-Circuit Resistance:

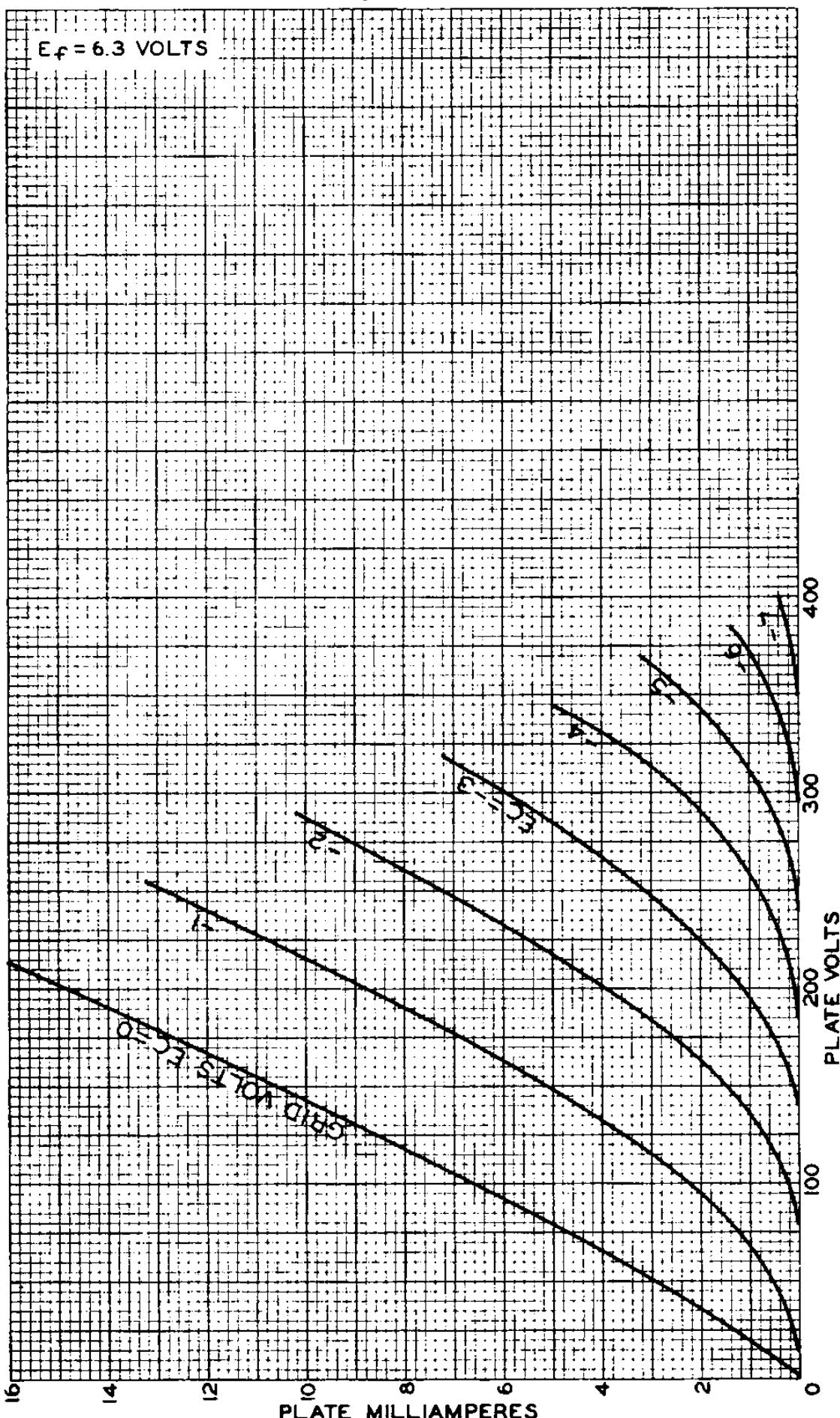
For fixed-bias operation 0.25 max. megohm
For cathode-bias operation 1.0 max. megohm

^A The dc component must not exceed 100 volts.

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AVERAGE PLATE CHARACTERISTICS
TRIODE UNIT

JUNE 14, 1955

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RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

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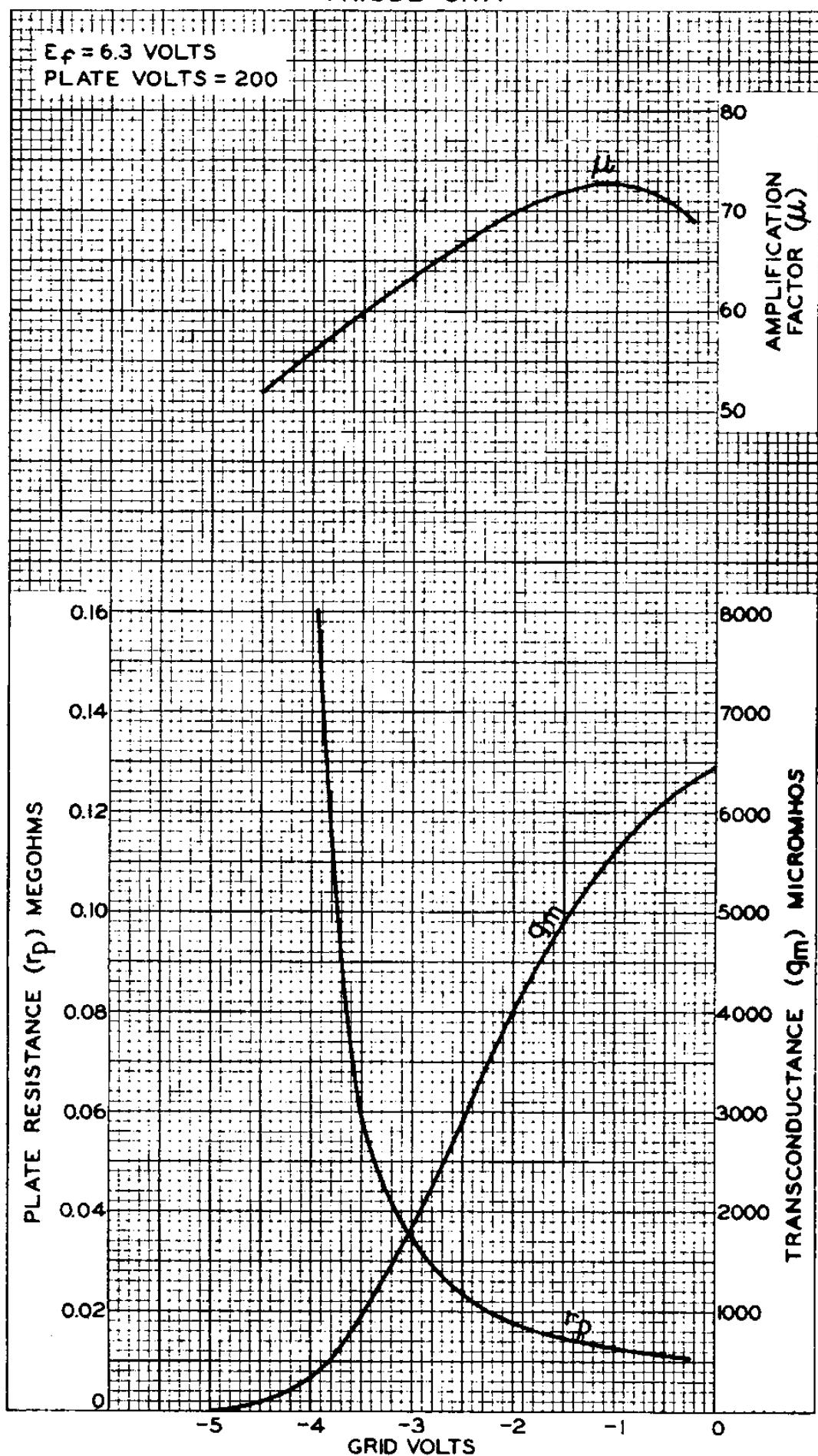
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AVERAGE CHARACTERISTICS
TRIODE UNIT

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$E_f = 6.3$ VOLTS
PLATE VOLTS = 200



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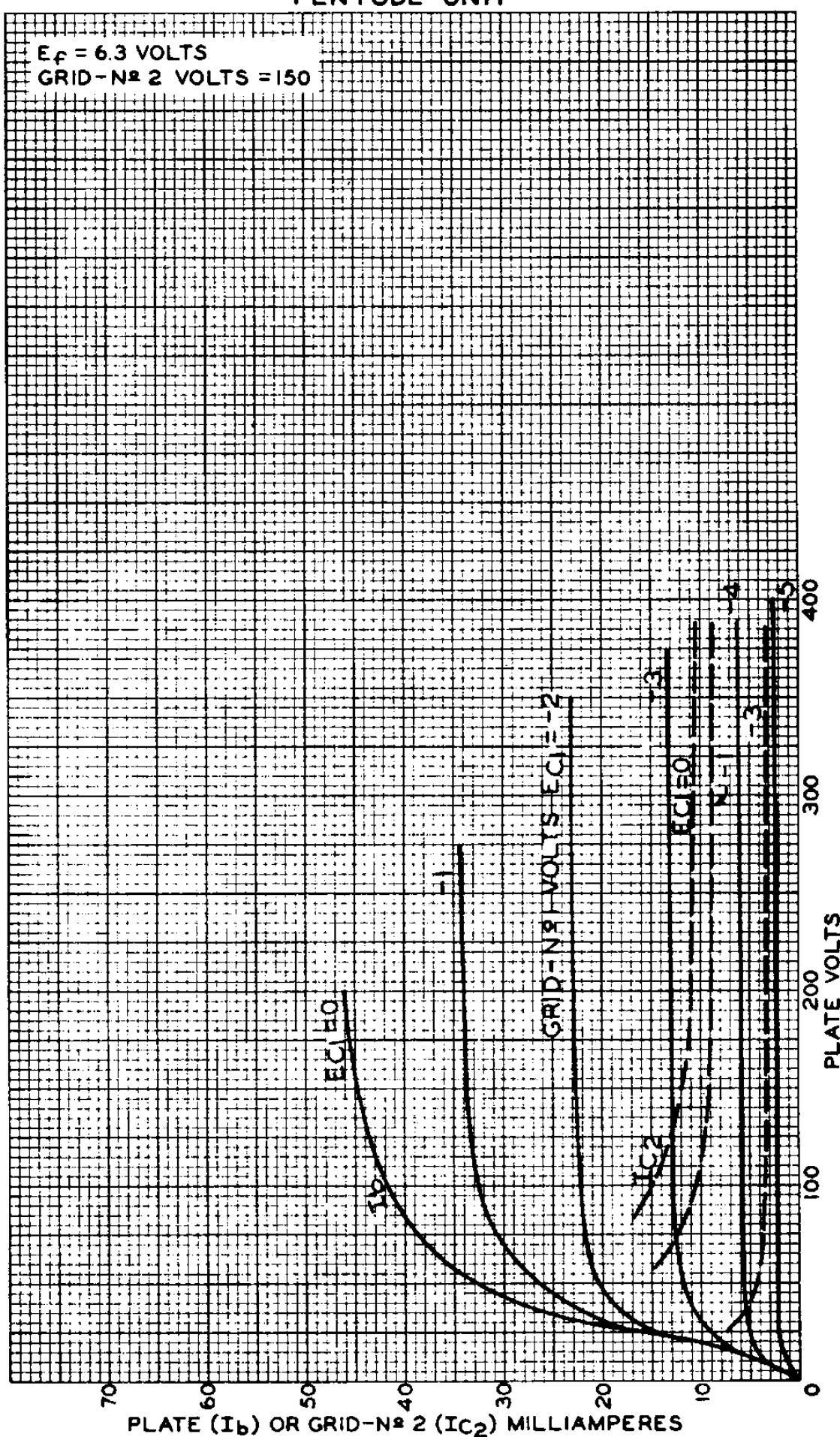
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AVERAGE CHARACTERISTICS
PENTODE UNIT

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RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

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AVERAGE CHARACTERISTICS
PENTODE UNIT

$E_f = 6.3$ VOLTS
PLATE VOLTS = 200
GRID - N° 2 VOLTS = 150

