



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	
Triode Unit:			
Grid to plate	2.2	2.2	μmf
Grid to cathode and heater	3.2	3.4	μmf
Plate to cathode and heater	0.32	1.7	μmf
Pentode Unit:			
Grid No.1 to plate	0.036 max.	0.03 max.	μmf
Grid No.1 to cathode & grid No.3 & internal shield, grid No.2, and heater	11	11	μmf
Plate to cathode & grid No.3 & internal shield, grid No.2, and heater	2.8	3.6	μmf
Triode grid to pentode plate	0.03 max.	0.008 max.	μmf
Pentode grid No.1 to triode plate	0.008 max.	0.005 max.	μmf
Pentode plate to triode plate	0.2 max.	0.05 max.	μmf

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.

MAR. 1, 1955

TUBE DIVISION

TENTATIVE DATA 1

RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY



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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	μmhos
Grid Voltage (Approx.) for plate current of 10 μamp	-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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HIGH-MU TRIODE— SHARP-CUTOFF PENTODE

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[▲] 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	μhos
Grid-No.1 Voltage (Approx.) for plate current of 10 μamp	-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

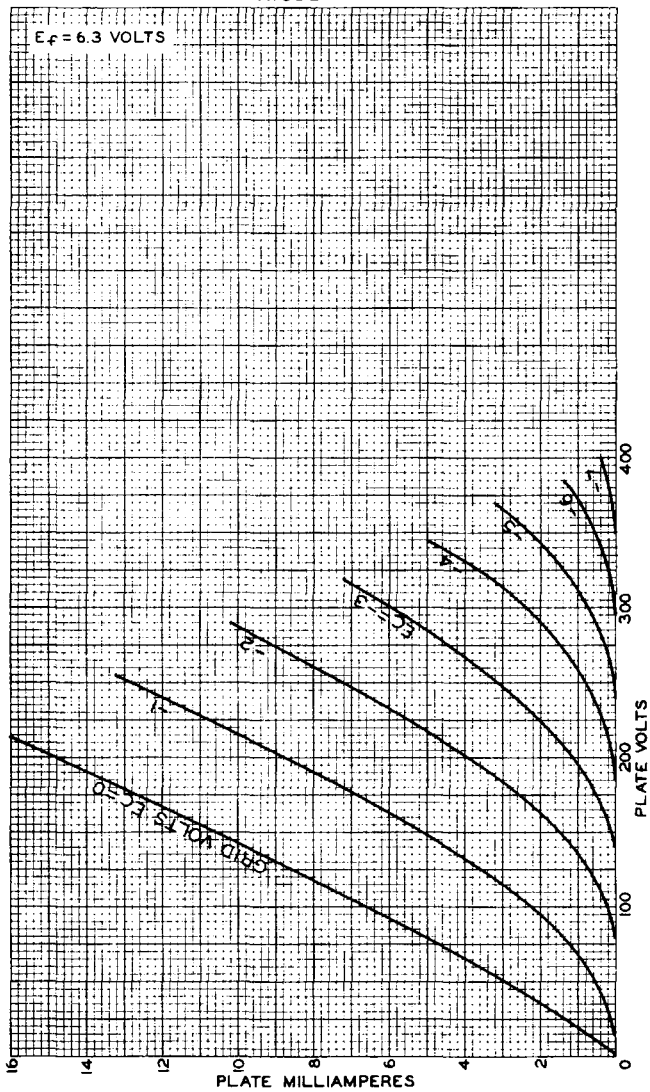
[▲] The dc component must not exceed 100 volts.

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AVERAGE PLATE CHARACTERISTICS TRIODE UNIT

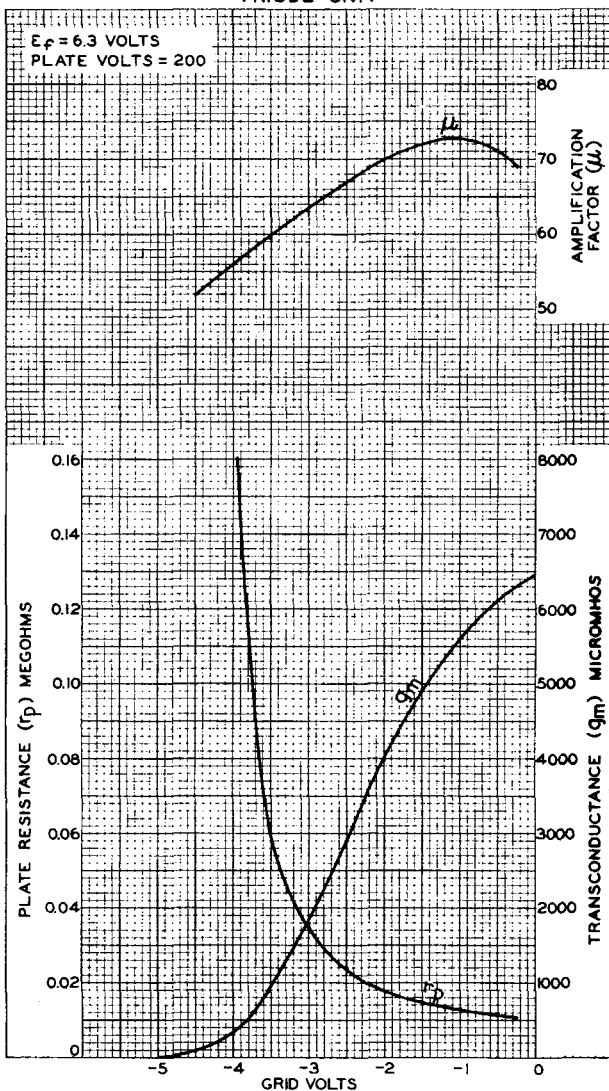




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AVERAGE CHARACTERISTICS TRIODE UNIT

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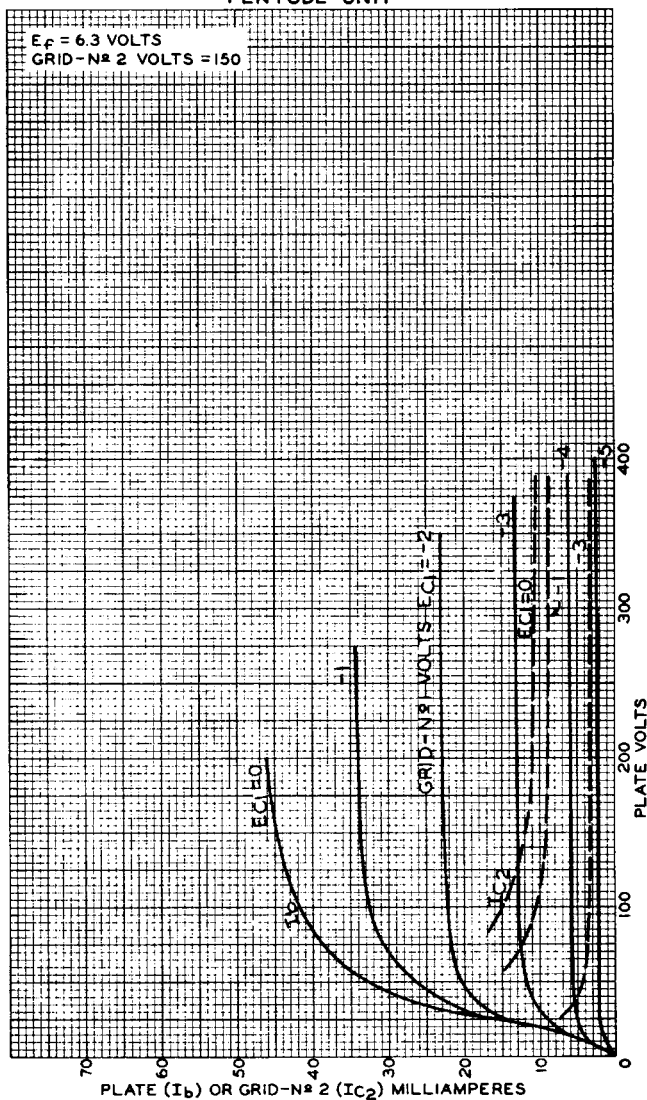
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AVERAGE CHARACTERISTICS PENTODE UNIT



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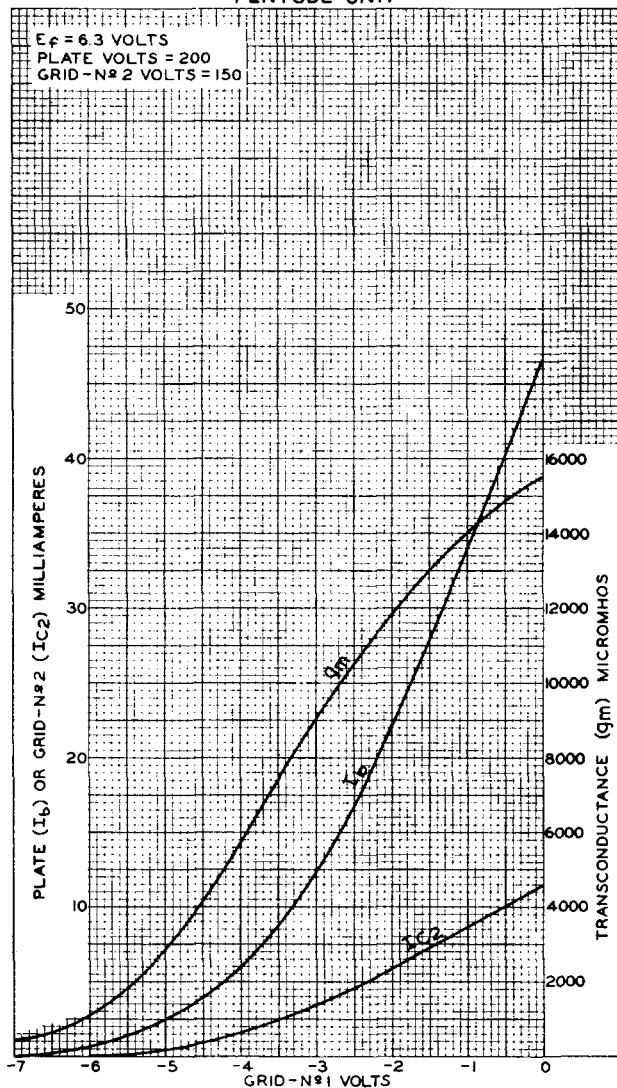


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AVERAGE CHARACTERISTICS PENTODE UNIT

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$E_f = 6.3$ VOLTS
PLATE VOLTS = 200
GRID-Nº 2 VOLTS = 150



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