



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 ⁰	
Triode Unit:			
Grid to plate.	2.2	2.2	μf
Grid to cathode and heater	3.2	3.4	μf
Plate to cathode and heater	0.32	1.7	μf
Pentode Unit:			
Grid No.1 to plate	0.036 max.	0.03 max.	μf
Grid No.1 to cathode & grid No.3 & internal shield, grid No.2, and heater	11	11	μf
Plate to cathode & grid No.3 & internal shield, grid No.2, and heater	2.8	3.6	μf
Triode grid to pentode plate.	0.03 max.	0.008 max.	μf
Pentode grid No.1 to triode plate	0.008 max.	0.005 max.	μf
Pentode plate to triode plate	0.2 max.	0.05 max.	μf

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

⁰ 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

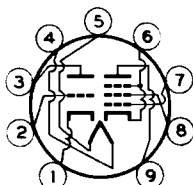
Pin 1 - Triode
 Cathode

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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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 μ mhosGrid-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

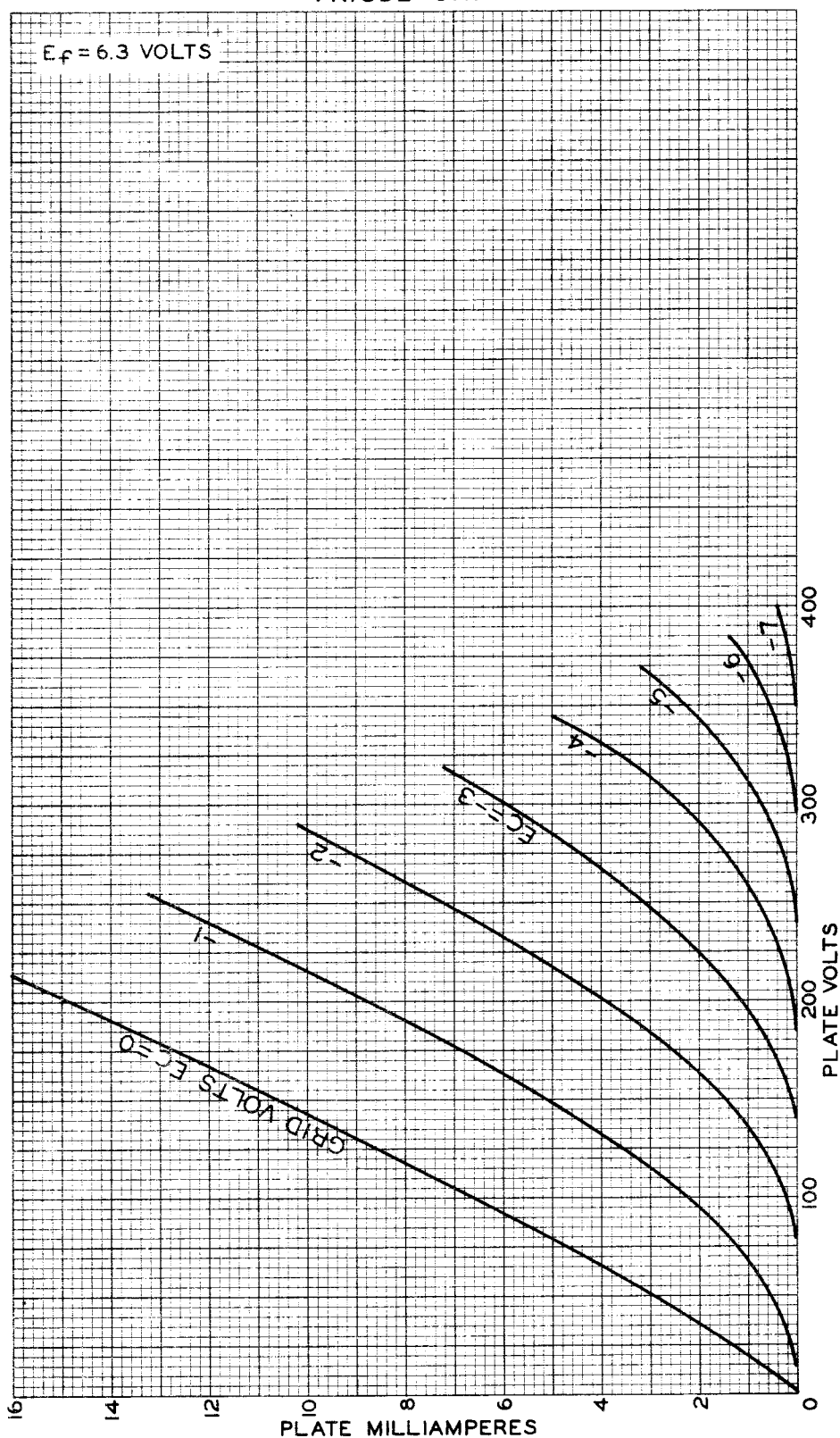
[▲] The dc component must not exceed 100 volts.

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AVERAGE PLATE CHARACTERISTICS TRIODE UNIT



JUNE 14, 1955

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92CM-8644