

High-Mu Triode— Sharp-Cutoff Pentode

9-PIN MINIATURE TYPE

FRAME-GRID CONSTRUCTION

*For Use as a Combined Voltage Amplifier
and Video Output Tube in TV Receivers*

ELECTRICAL

Heater Characteristics and Ratings

Voltage (AC or DC)	6.3 ± 0.6	V
Current at heater volts = 6.3	0.775	A
Peak heater-cathode voltage (Each unit):		
Heater negative with respect to cathode	200	V
Heater positive with respect to cathode	200 ^a	V

Direct Interelectrode Capacitances^b

Triode Unit:

Grid to plate	3.7	pF
Grid to cathode, pentode cathode, pentode grid No.3 & internal shield, and heater.	2.5	pF
Plate to cathode, pentode cathode, pentode grid No.3 & internal shield, and heater.	2.4	pF
Triode grid to pentode plate.	0.015 max	pF

Pentode Unit:

Grid No.1 to plate.	0.12 max	pF ←
Grid No.1 to cathode & grid No.3 & internal shield, grid No.2, and heater.	13.0	pF
Plate to cathode & grid No.3 & internal shield, grid No.2, and heater.	4.8	pF
Pentode plate to triode plate	0.17 max	pF

Characteristics, Class A₁ Amplifier

	Triode Unit	Pentode Unit	
Plate Supply Voltage.	—	125	200 V
Plate Voltage	200	—	— V
Grid-No.2 Supply Voltage.	—	125	125 V
Grid-No.1 Supply Voltage.	—2	—	— V
Cathode Resistor.	—	82	68 Ω
Amplification Factor.	70	—	—
Plate Resistance (Approx.)	17500	55000	75000 Ω
Transconductance.	4000	21000	23000 μmho
Plate Current	4	16.5	20 mA ←
Grid-No.2 Current	—	3.1	3.5 mA ←
Grid-No.1 Voltage (Approx.) for plate current = 100 μA	—4.5	—4.2	—4.2 V

← Indicates a change.

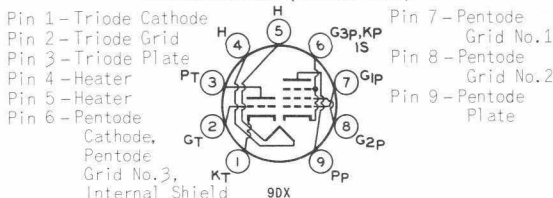


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MECHANICAL

Operating Position.	Any
Maximum Overall Length.	2-5/8 in
Maximum Seated Length.	2-3/8 in
Length, Base Seat to Bulb Top (Excluding tip).	2 ± 3/32 in
Diameter.	0.750 to 0.875 in
Dimensional Outline.	See <i>General Section</i>
Bulb.	T6-1/2
Base.	Small-Button Noval 9-Pin (JEDEC No.E9-1)

BASING DIAGRAM (Bottom View)



AMPLIFIER — Class A₁ Design-Maximum Ratings

	Triode Unit	Pentode Unit	
Plate Voltage.	300	300 max	V
Grid-No.2 (Screen-Grid) Supply Voltage.	-	300 max	V
Grid-No.2 Voltage.	-	See <i>Grid-No.2</i>	
<i>Input Rating Chart at front of Receiving Tube Section</i>			
Grid-No.1 (Control-Grid) Voltage			
Positive-bias value.	0	0 max	V
Grid-No.2 Input			
For grid-No.2 voltages up to 150 V.	-	1 max	W
For grid-No.2 voltages between 150 and 300 V.	-	See <i>Grid-No.2</i>	
<i>Input Rating Chart at front of Receiving Tube Section</i>			
Plate Dissipation.	1	5 max	W

Maximum Circuit Values

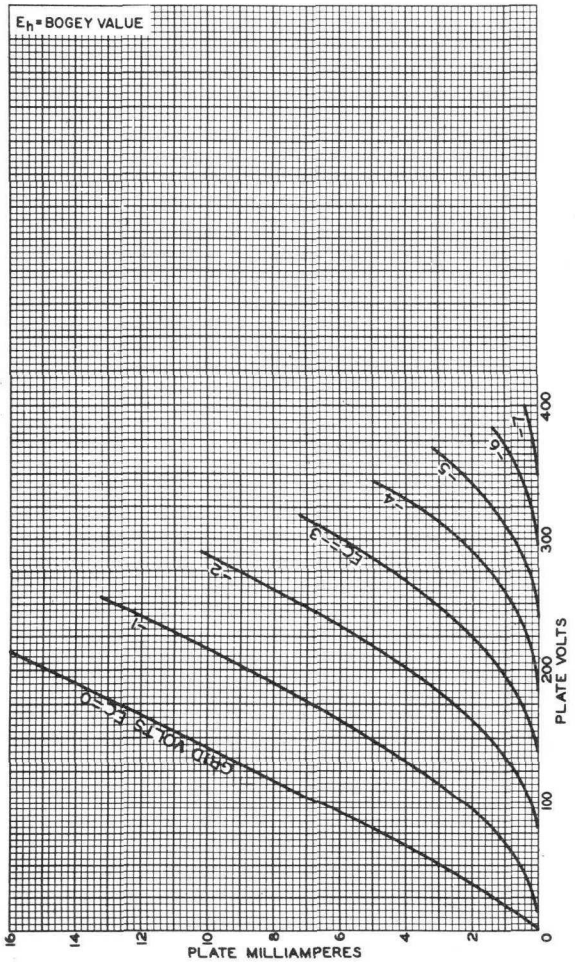
	Triode Unit	Pentode Unit	
Grid-No.1-Circuit Resistance			
For fixed-bias operation.	0.5	0.1 max	MΩ
For cathode-bias operation.	1	0.25 max	MΩ

^a The dc component must not exceed 100 volts.

^b Without external shield.



Average Plate Characteristics Triode Unit

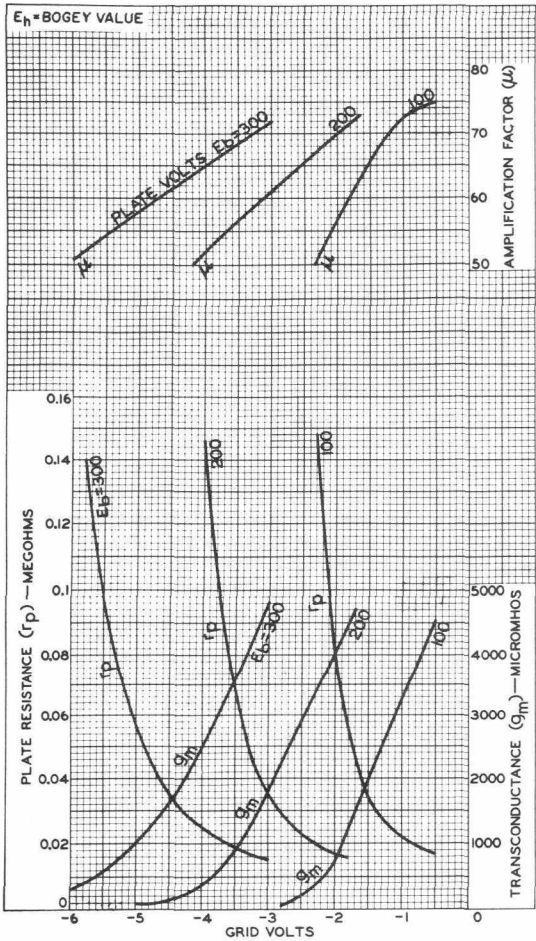


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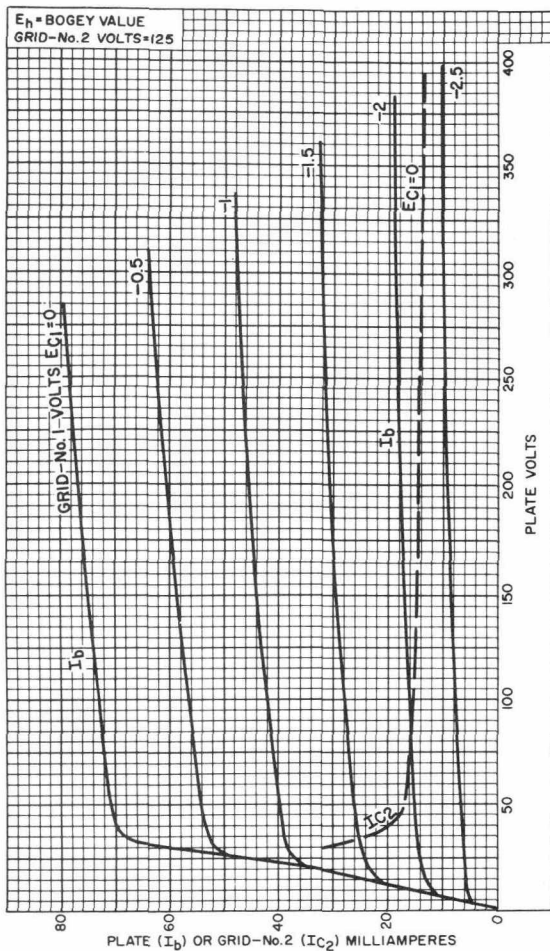
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Average Characteristics Triode Unit



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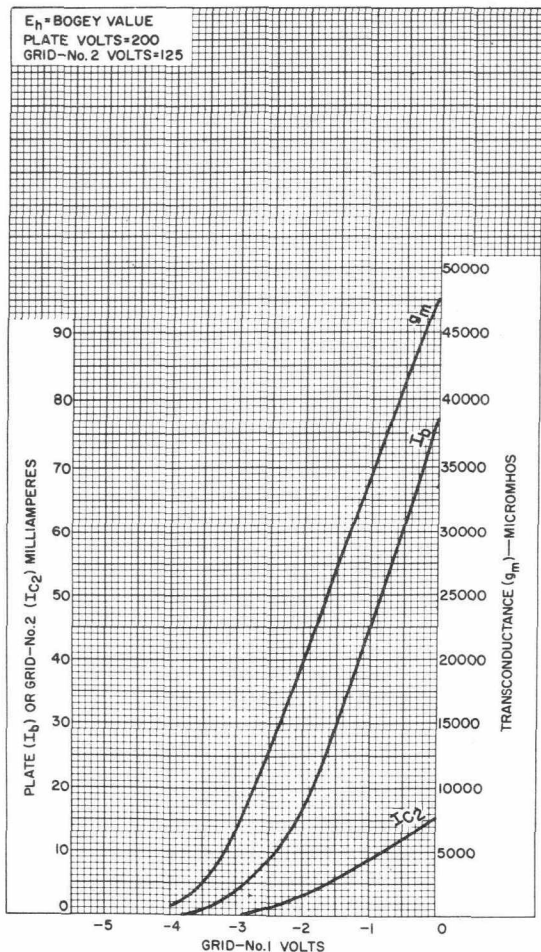
Average Characteristics
Pentode Unit

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Average Characteristics Pentode Unit



92CM-11947R2

