

## 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 <sup>a</sup>	V

#### Direct Interelectrode Capacitances<sup>b</sup>

##### 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 A<sub>1</sub> 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.

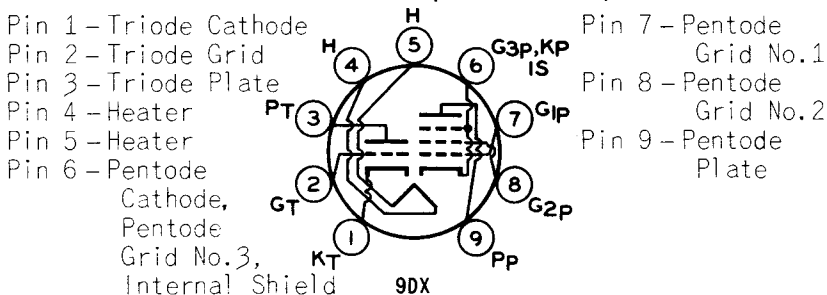


# 6KV8

## 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 A<sub>1</sub> 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

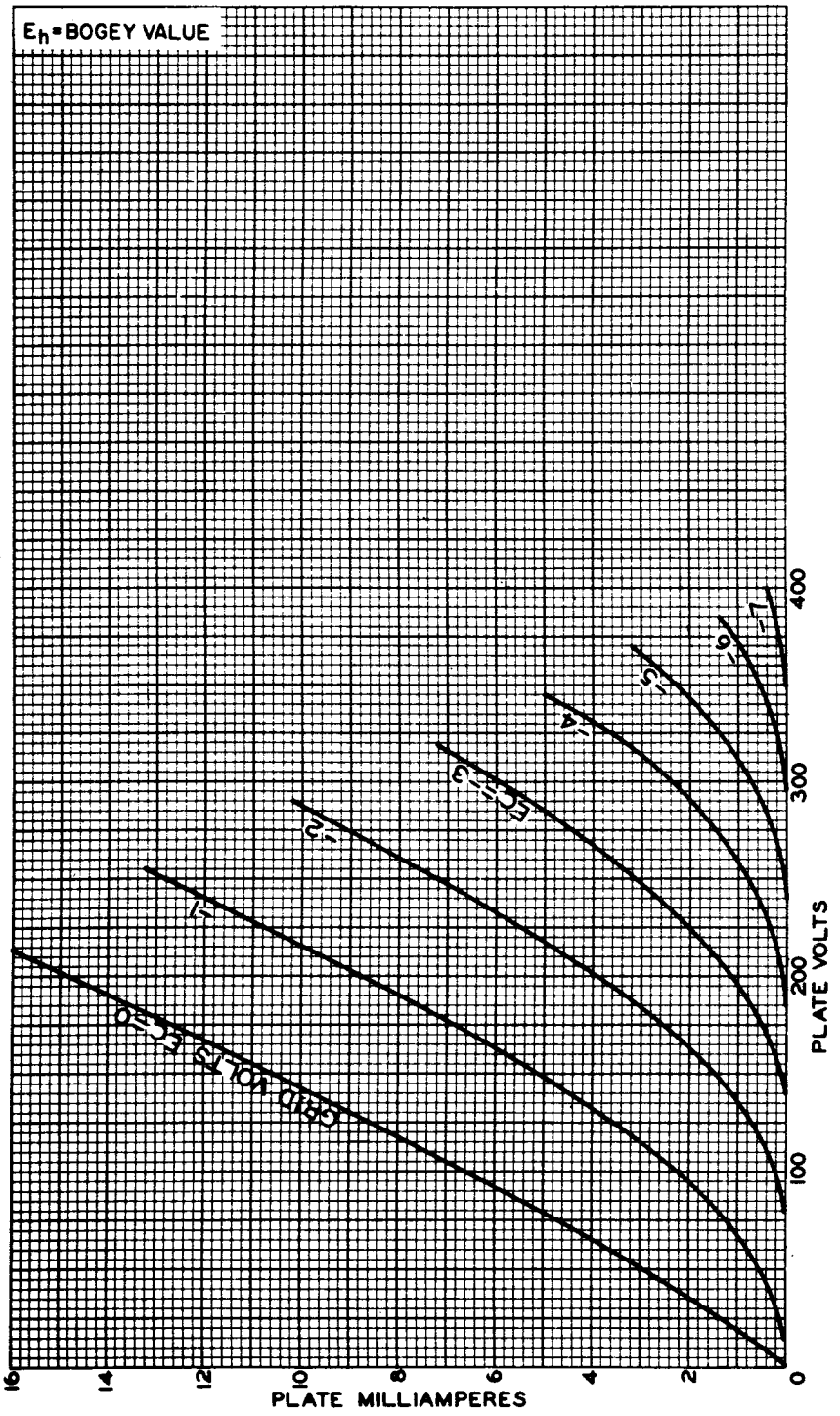
	Triode Unit	Pentode Unit	
Grid-No.1-Circuit Resistance			
For fixed-bias operation . . . . .	0.5	0.1 max	MΩ
For cathode-bias operation . . . . .	1	0.25 max	MΩ

<sup>a</sup> The dc component must not exceed 100 volts.

<sup>b</sup> Without external shield.



## Average Plate Characteristics Triode Unit

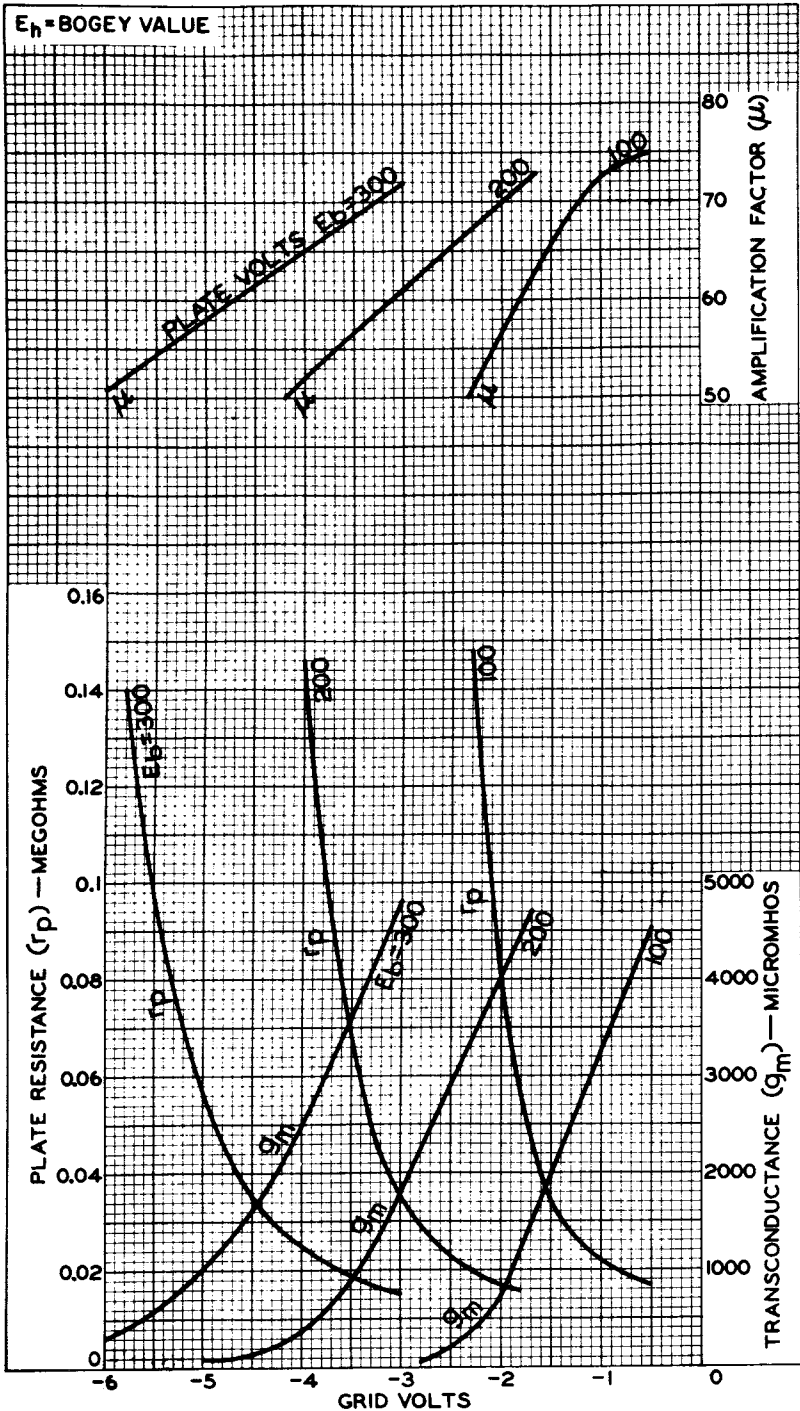


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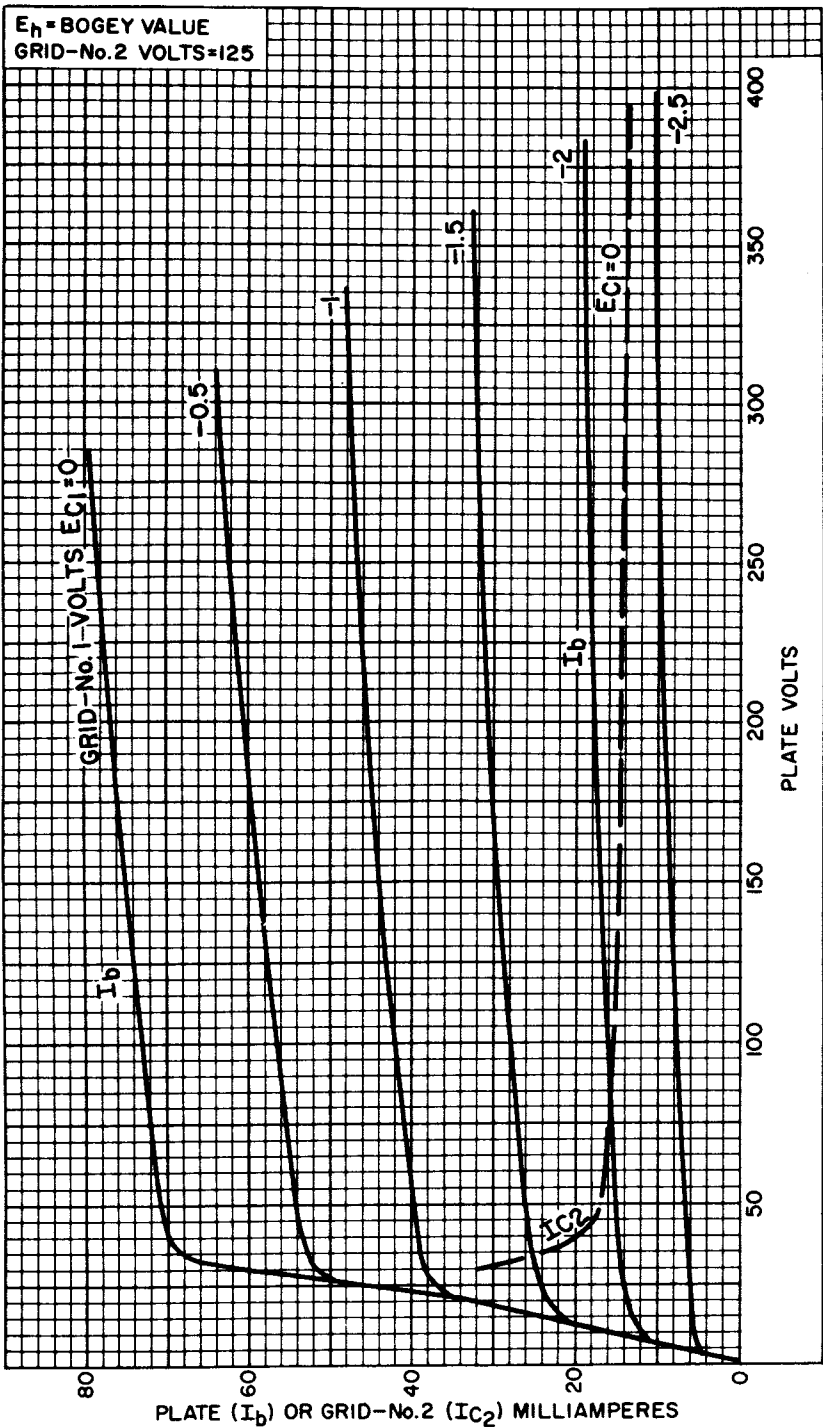
## Average Characteristics Triode Unit



92CM-10874RI



## Average Characteristics Pentode Unit

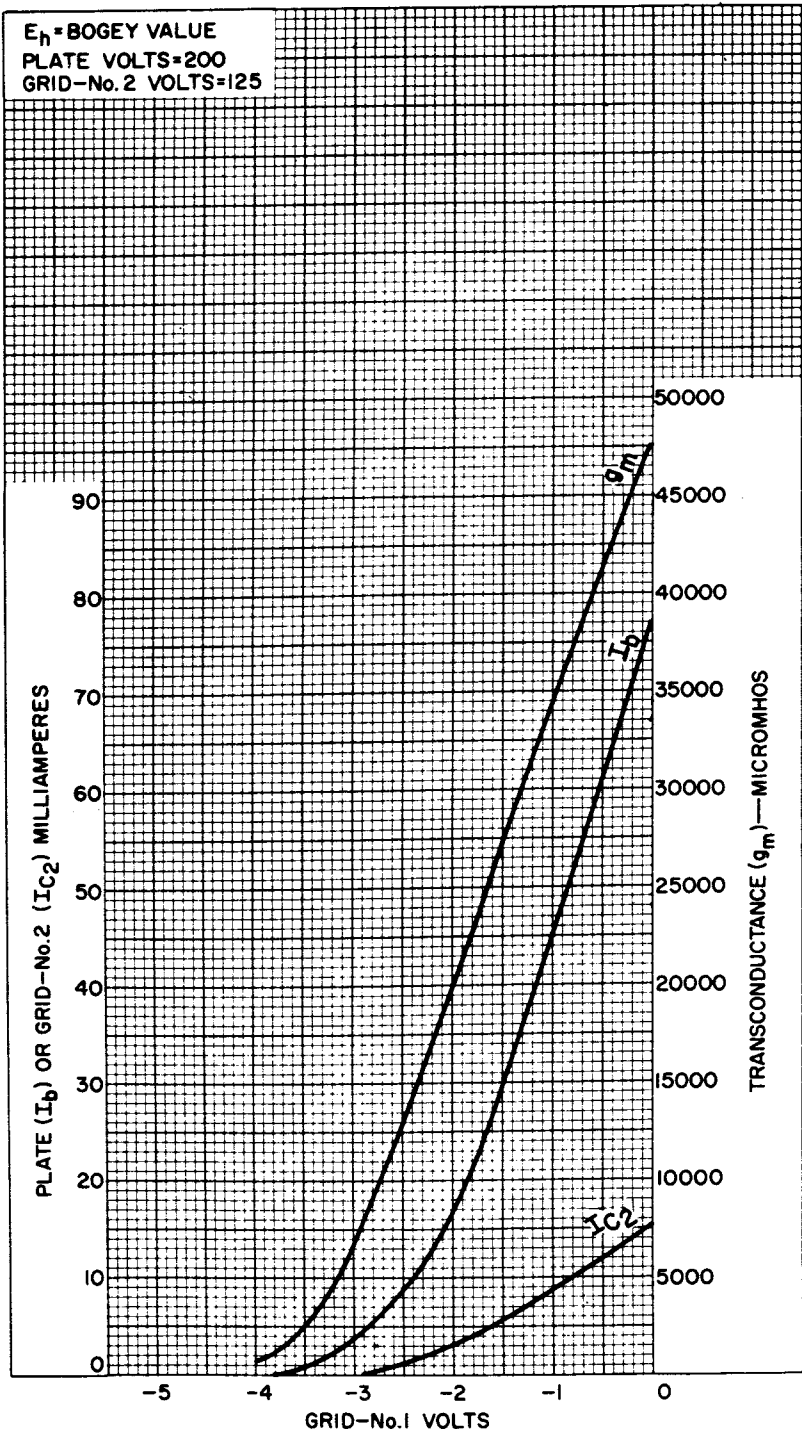


92CM-11946R2



# 6KV8

## Average Characteristics Pentode Unit



92CM-11947R2

