

Medium-Mu Triode— Sharp-Cutoff Pentode

9-PIN MINIATURE TYPE

*For Use in Low-B+ Black-and-White TV Receivers
Having Low-Voltage Power Supplies*

ELECTRICAL CHARACTERISTICS

Bogey Values^a

Heater Voltage (AC or DC)	E_h	6.3	V
Heater Current.	I_h	0.775	A
Direct Interelectrode Capacitances			
Without external shield			

Triode Unit:

Grid to plate	C_{g-p}	2.8	pF
Input: G_T to (K_T , $K_p + G_3P + IS$, H)	C_i	4.2	pF
Output: P_T to (K_T , $K_p + G_3P + IS$, H).	C_o	2.4	pF

Pentode Unit:

Grid No.1 to plate.	C_{g1-p}	0.12 max	pF
Input: G_1P to ($K_p + G_3P + IS$, G_2P , H).	C_i	14	pF
Output: P_P to ($K_p + G_3P + IS$, G_2P , H).	C_o	4.8	pF
Triode grid to pentode plate.	-	0.015 max	pF
Pentode plate to triode plate	-	0.17 max	pF

For the following characteristics, see Conditions

		Triode Unit	Pentode Unit	
Amplification Factor.	μ	46	-	-
Plate Resistance (Approx.).	r_p	4400	55000	75000 Ω
Transconductance.	g_m	10400	21000	23000 μmho
DC Plate Current.	I_b	15	16.5	20 mA
DC Grid-No.2 Current.	I_{c2}	-	3.1	3.5 mA
Cutoff DC Grid-No.1 Voltage	$E_{c1}(co)$	-6	-4.2	-4.2 V
Plate $\mu A = 100$				

Conditions

Heater Voltage.	E_h	Bogey value			V
DC Plate Supply Voltage	E_{bb}	125	125	200	V
DC Grid-No.2 Supply Voltage	E_{cc2}	-	125	125	V
Grid No.1	-	Connected to negative end of R_k			
Cathode Resistor.	R_k	68	82	68	Ω

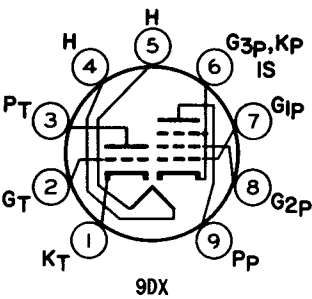
MECHANICAL CHARACTERISTICS

Operating Position.	Any
Type of Cathodes.	Coated Unipotential
Maximum Overall Length.	2.625 in
Maximum Seated Length	2.375 in
Maximum Diameter.	0.875 in
Dimensional Outline	See General Section
Envelope.	JEDEC T6-1/2
Base.	Small-Button Noval 9-Pin (JEDEC E9-1)



TERMINAL DIAGRAM (Bottom View)

- Pin 1 - Triode Cathode
- Pin 2 - Triode Grid
- Pin 3 - Triode Plate
- Pin 4 - Heater
- Pin 5 - Heater
- Pin 6 - Pentode Grid No.3,
Pentode Cathode,
Internal Shield
- Pin 7 - Pentode Grid No.1
- Pin 8 - Pentode Grid No.2
- Pin 9 - Pentode Plate



DESIGN-MAXIMUM RATINGS

For operation as a Class A₁ Amplifier Tube

		Triode Unit	Pentode Unit	
DC Plate Voltage	E _b	300	300	V
DC Grid-No.2 (Screen-Grid) Supply Voltage	E _{cc2}	-	300	V
DC Grid-No.2 Voltage	E _{c2}	-	See Grid-No.2 Input Rating Chart	
at front of Receiving Tube Section				
DC Grid-No.1 (Control-Grid) Voltage				
Positive-bias value	E _{c1}	0	0	V
Heater-Cathode Voltage				
Peak	e _{hkm}	±200		V
Average ^b	E _{hk(av)}	100		V
Heater Voltage (AC or DC) . . .	E _h	5.7 to 6.9		V
Grid-No.2 Input	P _{g2}			
For E _{c2} ≤ 150 V	-	-	1	W
For E _{c2} ≥ 150 V and ≤ 300 V .	-	-	See Grid-No.2 Input Rating Chart	
at front of Receiving Tube Section				
Plate Dissipation	P _b	2	5	W

MAXIMUM CIRCUIT VALUES

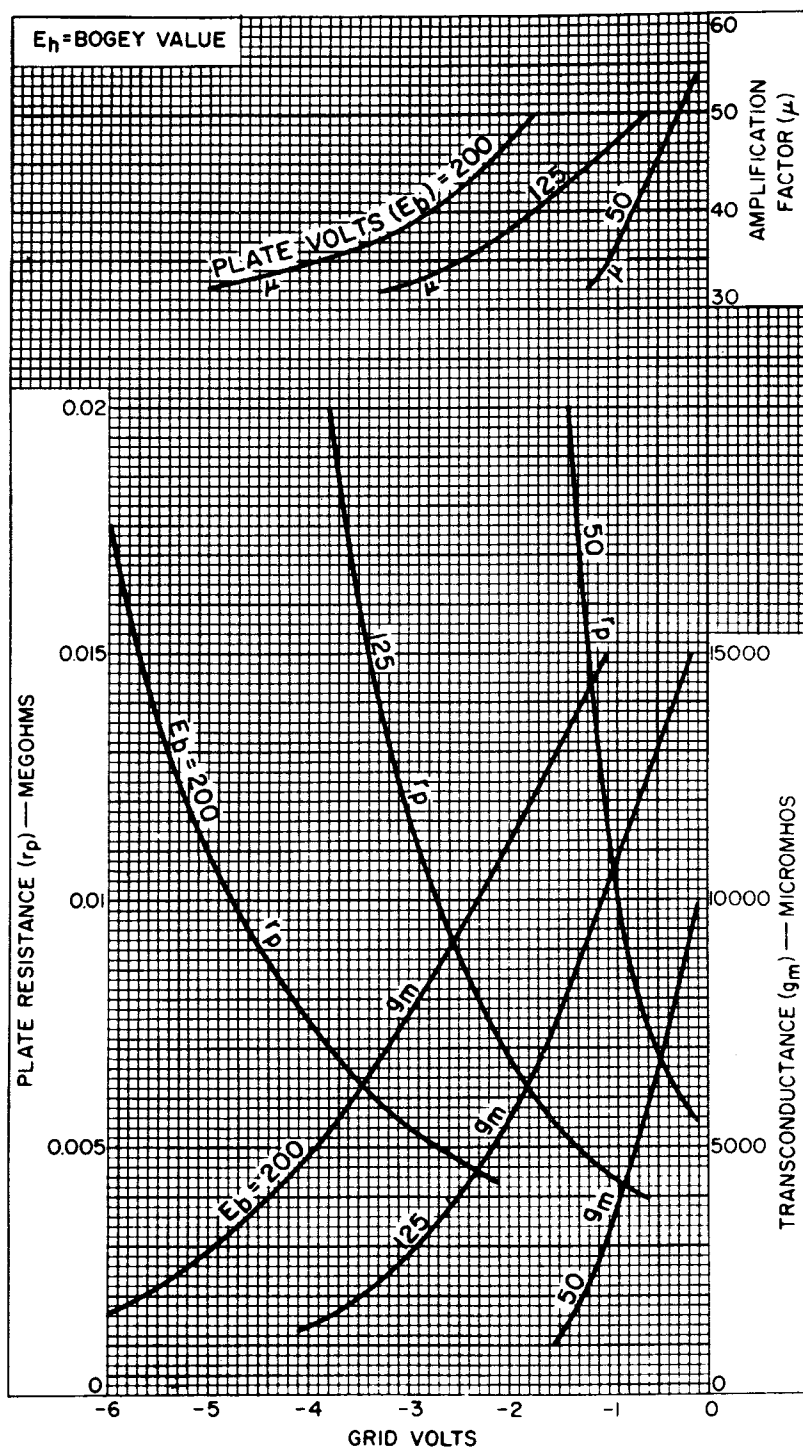
		Triode Unit	Pentode Unit	
Grid-No.1 Circuit Resistance	R _{g1(ckt)}			
For fixed-bias operation. . .	-	0.5	0.1	MΩ
For cathode-bias operation. .	-	1	0.25	MΩ

^a Unless otherwise specified.
^b Measured with a dc meter.



Typical Characteristics

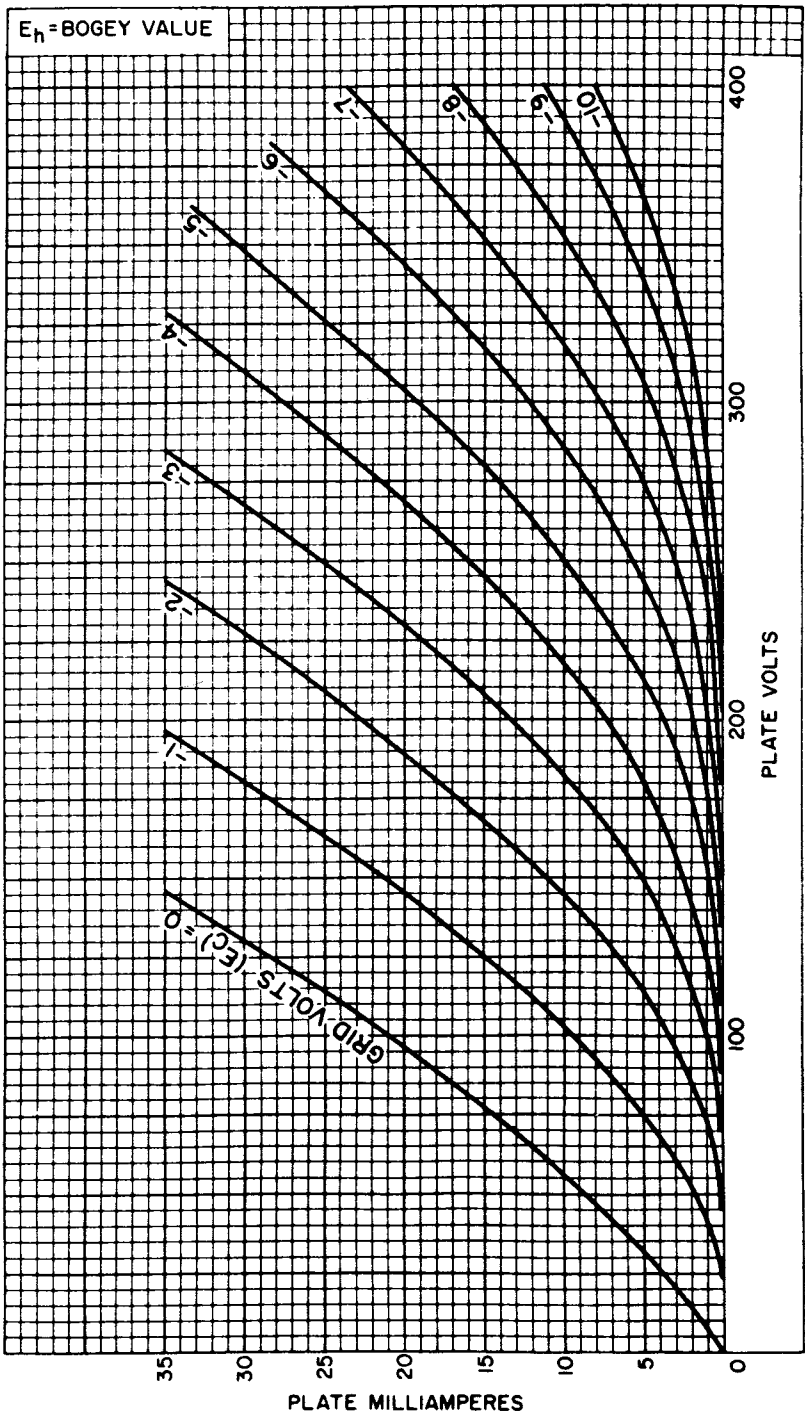
Triode Unit



92CM-12623R1



Typical Plate Characteristics
Triode Unit

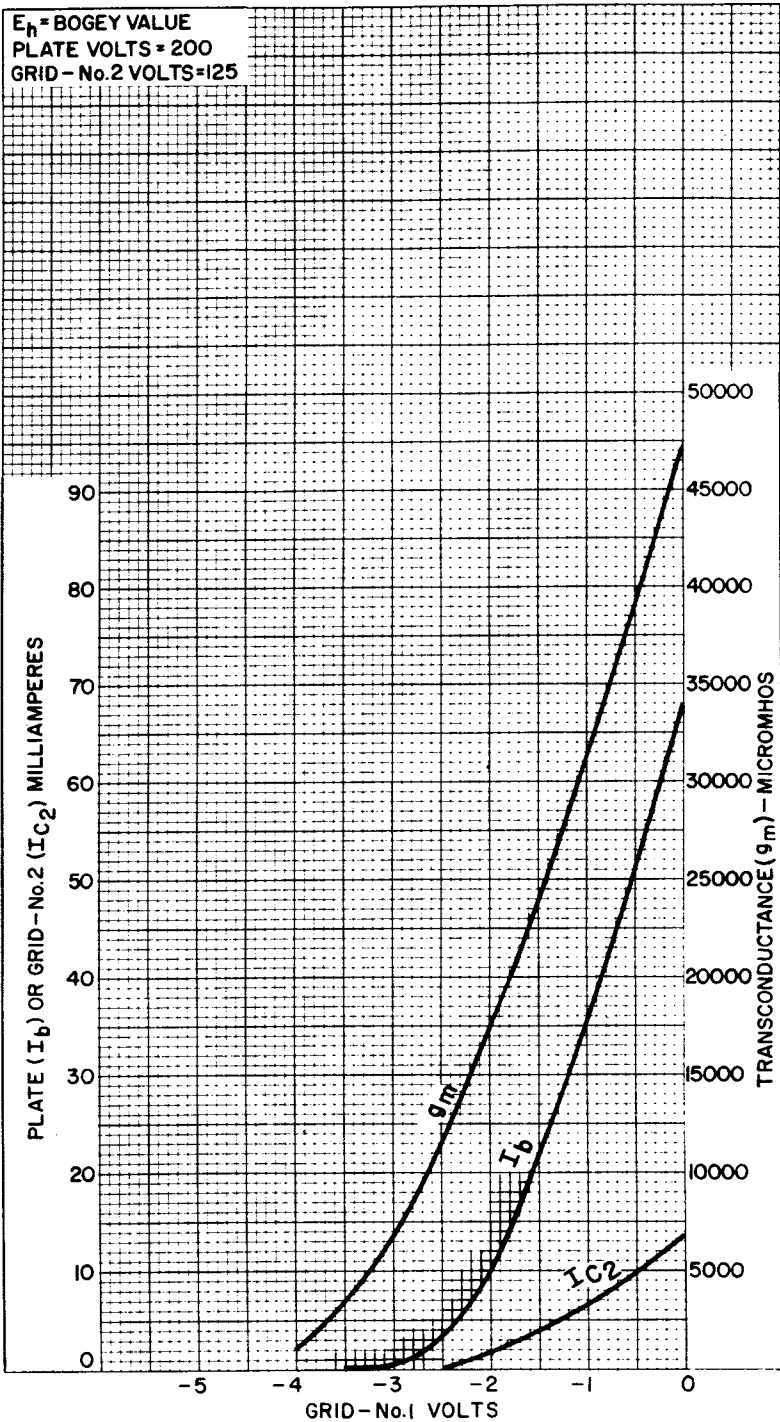


92CM-12616R1

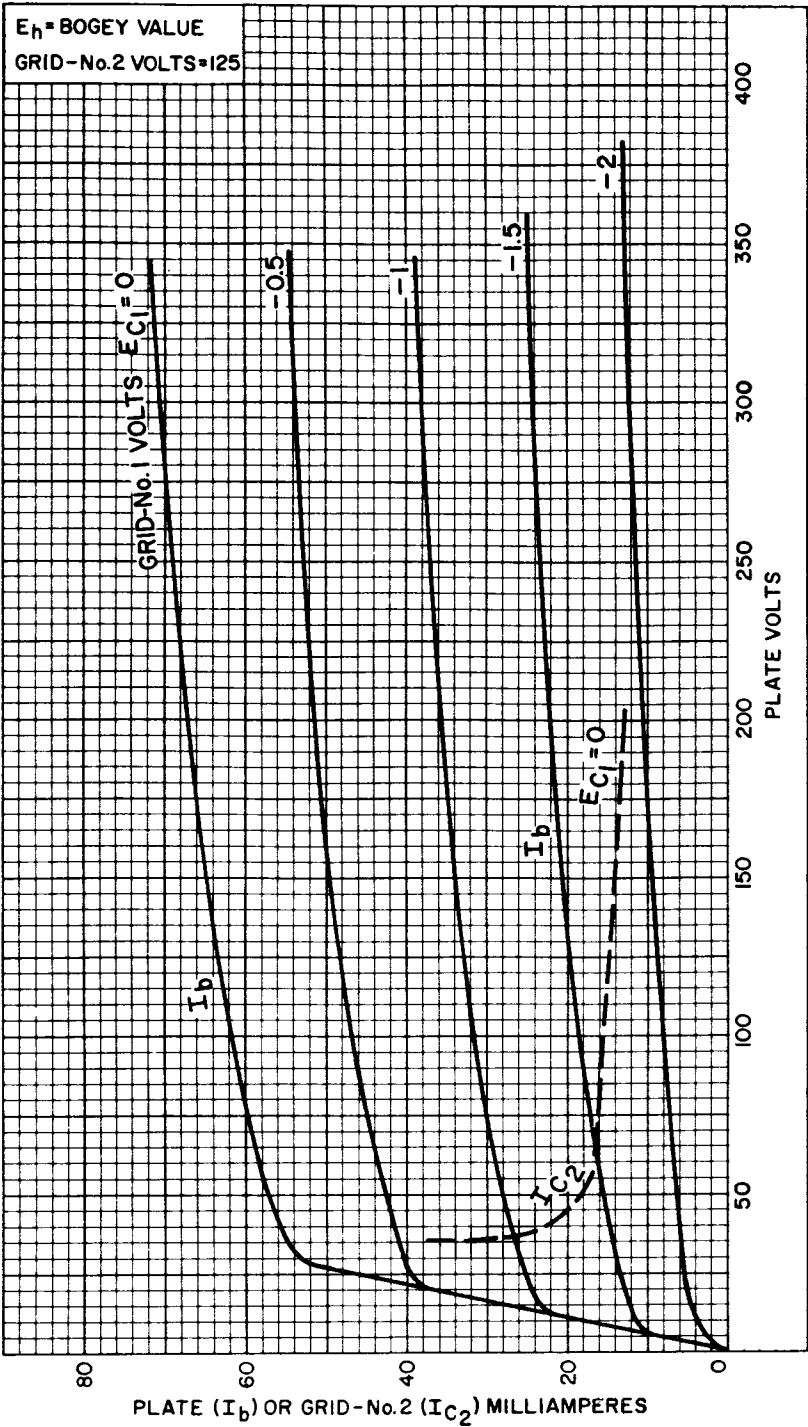


Typical Characteristics

Pentode Unit



Typical Plate Characteristics
Pentode Unit



92CM-13751

