

Medium-Mu Triode— Semiremote-Cutoff Pentode

9-PIN MINIATURE TYPE

SEPARATE CATHODE BASE-PIN CONNECTIONS

For Color and Black-and-White TV Receivers. Pentode Unit is Particularly Suited for Burst-Amplifier Circuit in Color TV. Triode Unit is Useful as a General-Purpose Amplifier.

Electrical:

Heater Characteristics and Ratings:

Voltage (AC or DC)	6.3 ± 0.6	volts
Current at heater volts = 6.3	0.450	amp
Peak heater-cathode voltage (Each unit):		
Heater negative with respect to cathode	200 max.	volts
Heater positive with respect to cathode	200 ^a max.	volts

Direct Interelectrode Capacitances:^b

Triode Unit:

Grid to plate	1.8	pf
Input: G_T to $(K_T, K_P + G_{3P} + IS, H)$	3.2	pf
Output: P_T to $(K_T, K_P + G_{3P} + IS, H)$	1.9	pf

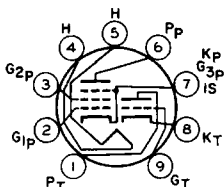
Pentode Unit:

Grid No.1 to plate	0.015 max.	pf
Input: G_{1P} to $(K_P + G_{3P} + IS, G_{2P}, H)$	5.5	pf
Output: P_P to $(K_P + G_{3P} + IS, G_{2P}, H)$	3.8	pf
Heater to cathode (Each unit)	3.2	pf

Mechanical:

Operating Position	Any
Type of Cathodes	Coated Unipotential
Maximum Overall Length	2-3/16"
Maximum Seated Length	1-15/16"
Length from Base Seat to Bulb Top (Excluding Tip)	1-9/16" ± 3/32"
Diameter	.0.750" to 0.875"
Dimensional Outline	See General Section
Bulb	T6-1/2
Base	Small-Button Noval 9-Pin (JEDEC No. E9-1)
Basing Designation for BOTTOM VIEW	9AE

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



AMPLIFIER — Class A₁

	Triode Unit	Pentode Unit	
Characteristics:			
Plate Voltage.	125	125	volts
Grid-No.2 Voltage.	—	125	volts
Grid-No.1 Voltage.	—1	—2	volts
Amplification Factor	46	—	
Plate Resistance (Approx.) . . .	5400	150000	ohms
Transconductance	8500	6000	μ hos
Plate Current.	13.5	12	ma
Grid-No.2 Current.	—	4	ma
Grid-No.1 Voltage (Approx.) for plate μ a = 10.	—8	—14	volts

Maximum Ratings, Design-Maximum Values:

Plate Voltage.	330 max.	350 max.	volts
Grid-No.2 (Screen-Grid) Supply Voltage	—	330 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:			
Positive-bias value.	0 max.	0 max.	volts
Grid-No.2 Input:			
For grid-No.2 voltages up to 165 volts.	—	0.55 max.	watt
For grid-No.2 voltages between 165 and 330 volts.	See Grid-No.2 Input Rating Chart at front of Receiving Tube Section		
Plate Dissipation.	2.5 max.	2.5 max.	watts

Maximum Circuit Values:

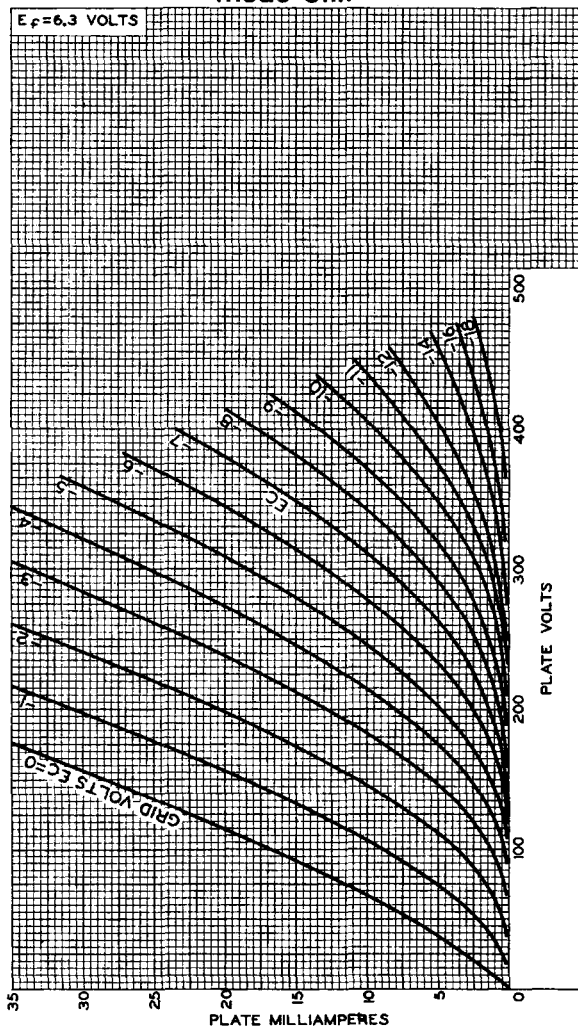
Grid-No.1-Circuit Resistance:			
For fixed-bias operation . . .	0.5 max.	0.25 max.	megohm
For cathode-bias operation . .	1 max.	0.5 max.	megohm

^a The dc component must not exceed 100 volts.

^b With external shield JEDEC No.315 measured in accordance with EIA Standard RS-191-A.



AVERAGE PLATE CHARACTERISTICS Triode Unit

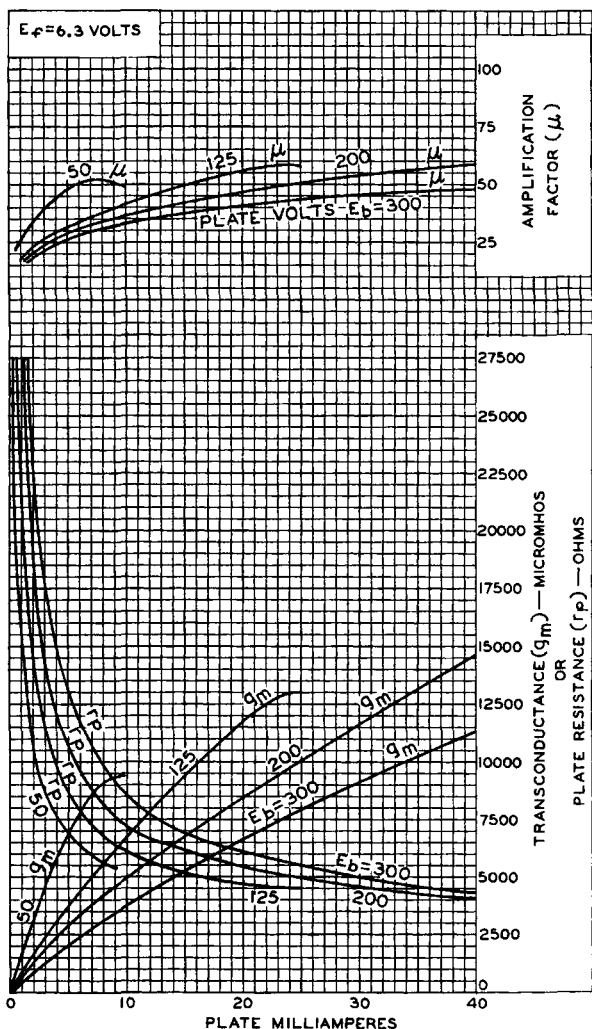


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AVERAGE CHARACTERISTICS Triode Unit

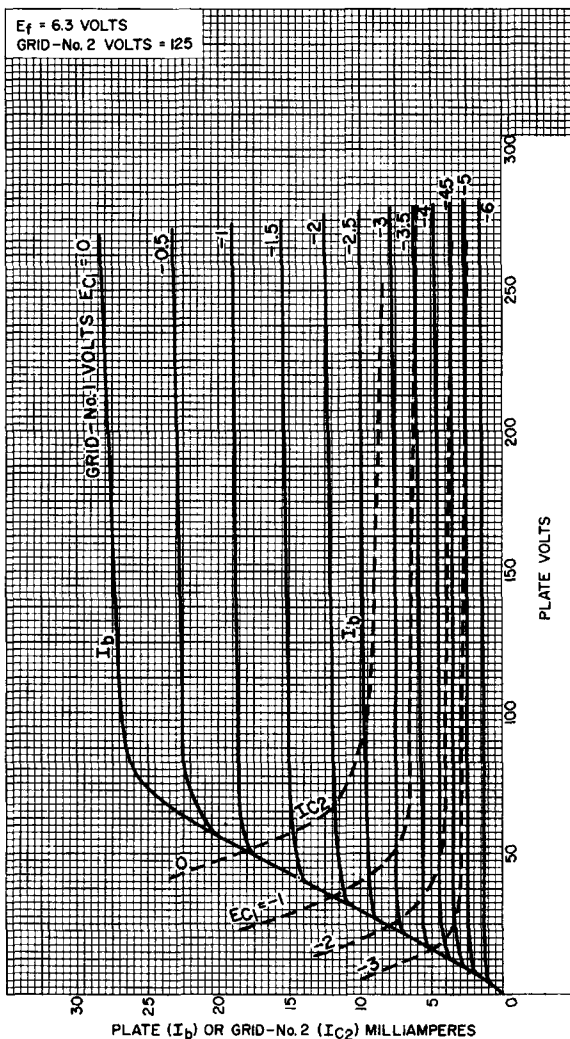


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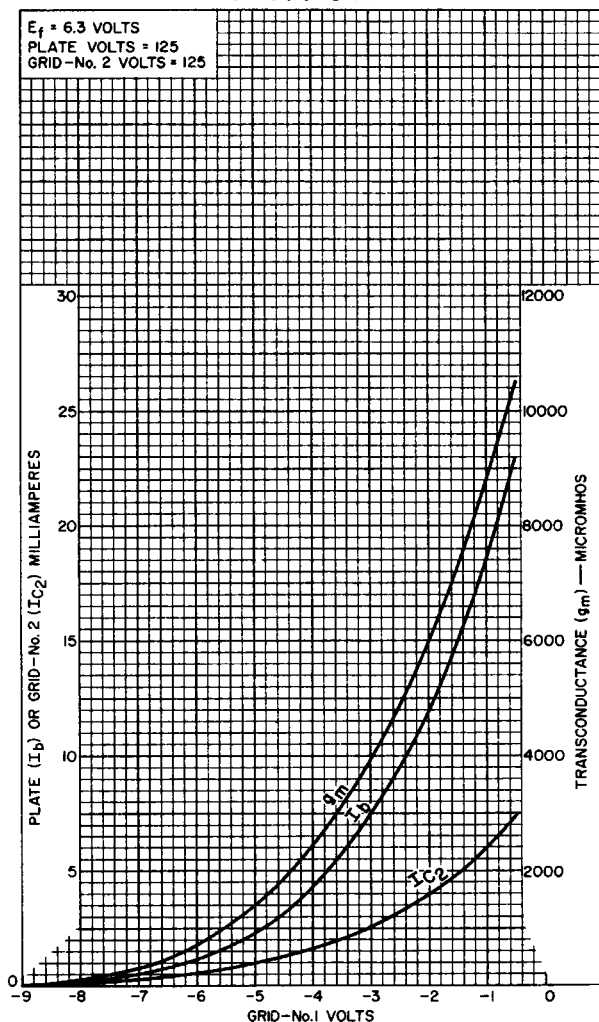


AVERAGE CHARACTERISTICS

Pentode Unit



AVERAGE CHARACTERISTICS Pentode Unit



92CM-12558

