

Medium-Mu Triode— Sharp-Cutoff Pentode

9-PIN MINIATURE TYPE

GENERAL DATA

Electrical:

Heater, for Unipotential Cathodes:

Voltage (AC or DC)	6.3	volts
Current at 6.3 volts.	0.45 ± 6%	amp
Warm-up time (Average).	11	sec

Direct Interelectrode Capacitances:

	<i>Without External Shield</i>	<i>With External Shield[▲]</i>	
Triode Unit:			
Grid to plate.	1.6	1.6	μmf
Grid to cathode, pentode grid No.3 & pentode cathode & internal shield, and heater . . .	3.4	3.6	μmf
Plate to cathode, pentode grid No.3 & pentode cathode & internal shield, and heater . . .	1.7	2.2	μmf
Heater to cathode.	3	3 [•]	μmf
Pentode Unit:			
Grid No.1 to plate	0.02 max.	0.015 max.	μmf
Grid No.1 to cathode & grid No.3 & internal shield, grid No.2, and heater	5.5	5.5	μmf
Plate to cathode & grid No.3 & internal shield, grid No.2, and heater. .	2.6	3.4	μmf
Heater to cathode & grid No.3 & internal shield .	3	3 [•]	μmf

Characteristics, Class A₁ Amplifier:

	<i>Triode Unit</i>	<i>Pentode Unit</i>	
Plate Voltage.	125	125	volts
Grid-No.2 Voltage.	—	125	volts
Grid-No.1 Voltage.	—1	—1	volt
Amplification Factor	46	—	
Plate Resistance (Approx.)	5400	200000	ohms
Transconductance	8500	7500	μmhos
Plate Current.	13.5	12	ma
Grid-No.2 Current.	—	4	ma
Grid-No.1 Voltage (Approx.) for plate $\mu a = 10$	—8	—8	volts

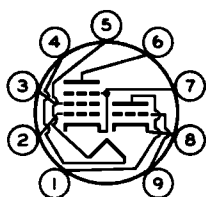


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Mechanical:

Operating Position. Any
 Maximum Overall Length. 2-3/16"
 Maximum Seated Length. 1-15/16"
 Length, Base Seat to Bulb Top (Excluding tip). . . 1-9/16" $\pm$ 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,
 Internal
 Shield
 Pin 8-Triode Cathode
 Pin 9-Triode Grid

HORIZONTAL-DEFLECTION OSCILLATOR

Maximum Ratings, Design-Maximum Values:

*For operation in a 525-line, 30-frame system**

	Triode Unit	Pentode Unit	
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
Peak-negative value. . .	-	175 max.	volts
CATHODE CURRENT:			
Peak.	-	300 max.	ma
Average.	-	20 max.	ma

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
PEAK HEATER-CATHODE			
VOLTAGE:			
Heater negative with			
respect to cathode . .	200 max.	200 max.	volts
Heater positive with			
respect to cathode . .	200 max.	200 max.	volts



Maximum Circuit Values:

<i>Triode</i>	<i>Pentode</i>
<i>Unit</i>	<i>Unit</i>

Grid-No.1-Circuit Resistance:

For fixed-bias or cathode-

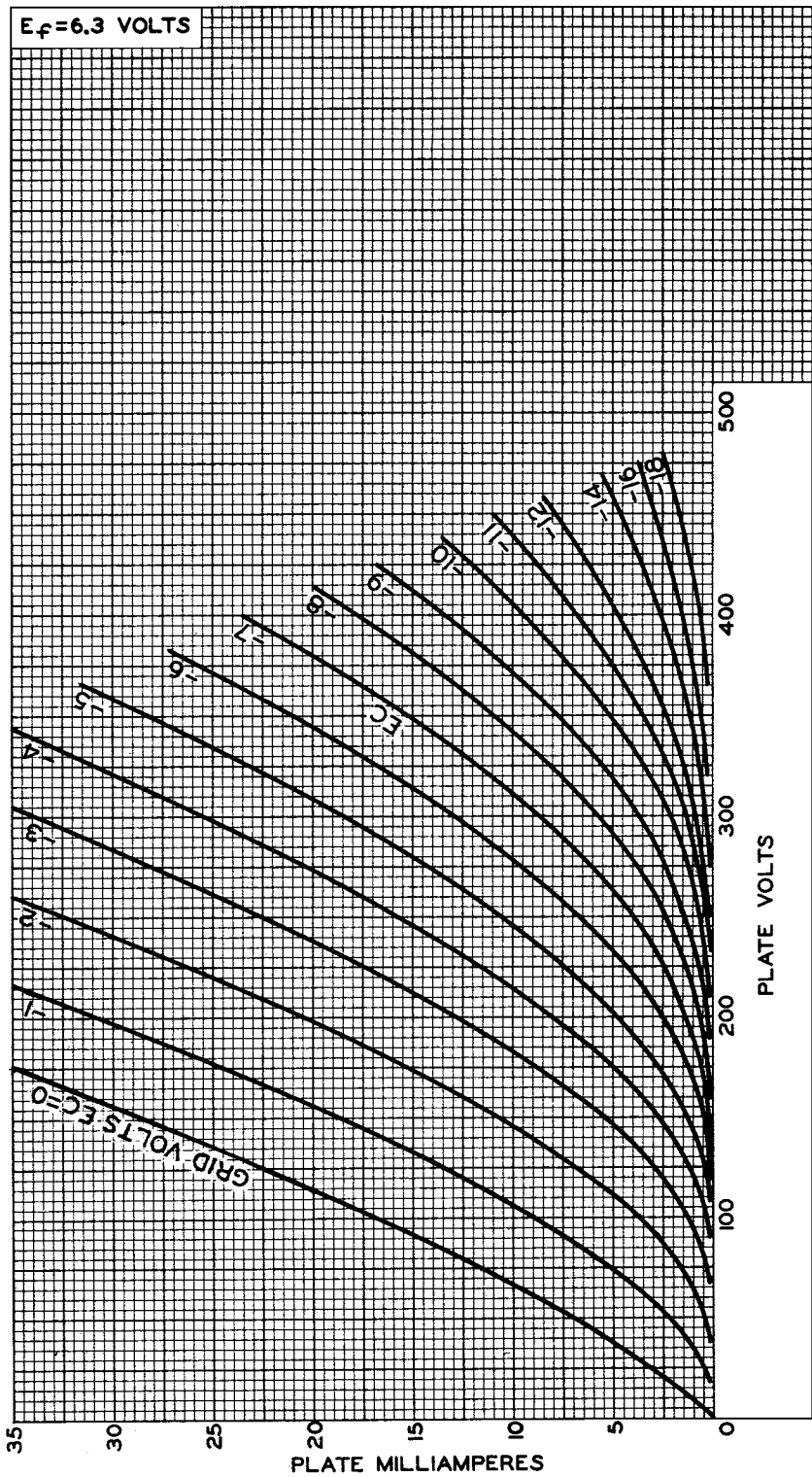
bias operation. 2.2 max. 2.2 max. megohms

- ▲ With external shield JEDEC No.315 connected to cathode of unit under test except as noted.
- With external shield JEDEC No.315 connected to ground.
- ★ As described in "Standards of Good Engineering Practice Concerning Television Broadcast Stations," Federal Communications Commission.
- ◆ The dc component must not exceed 100 volts.



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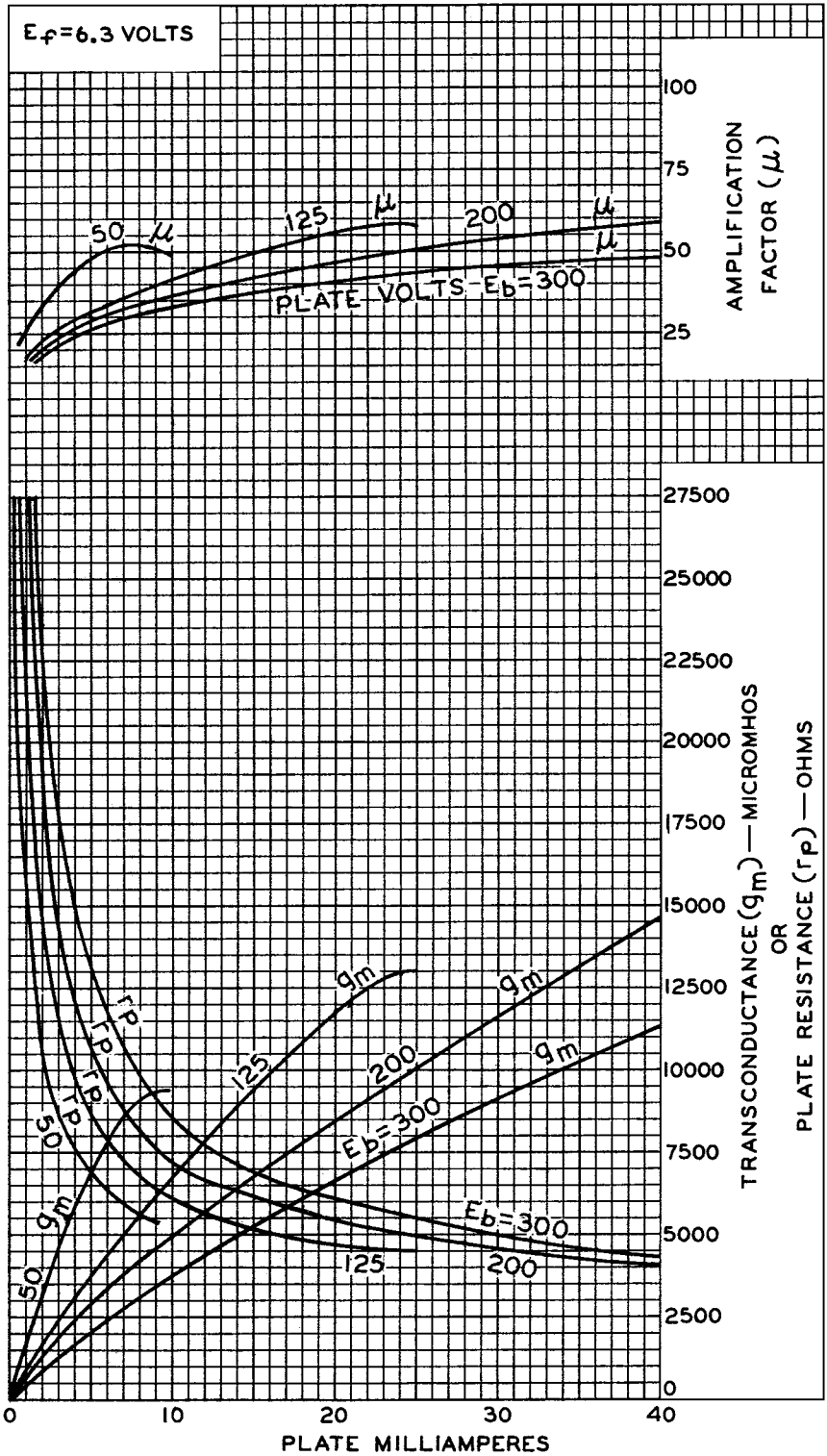
AVERAGE PLATE CHARACTERISTICS Triode Unit



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AVERAGE CHARACTERISTICS Triode Unit

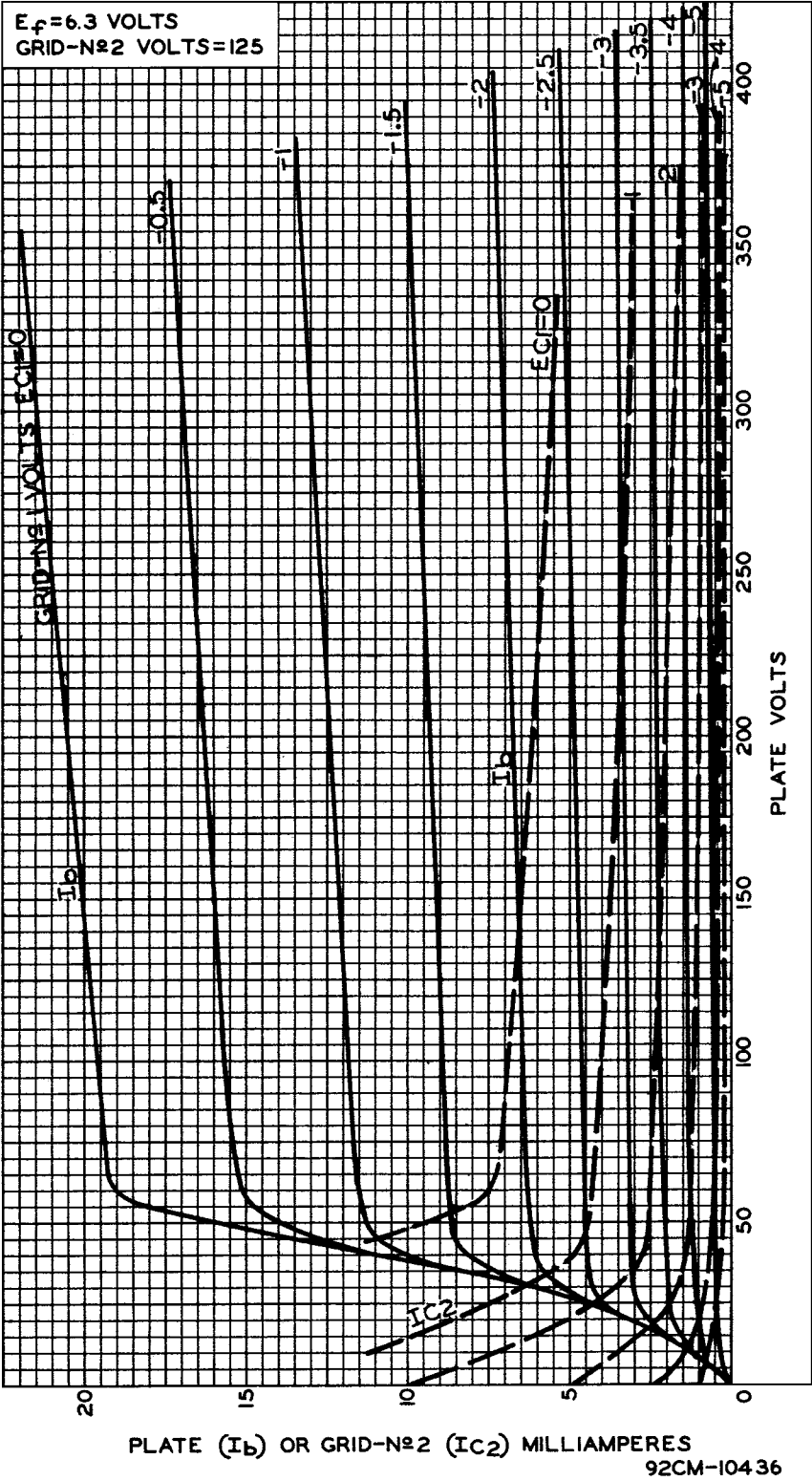


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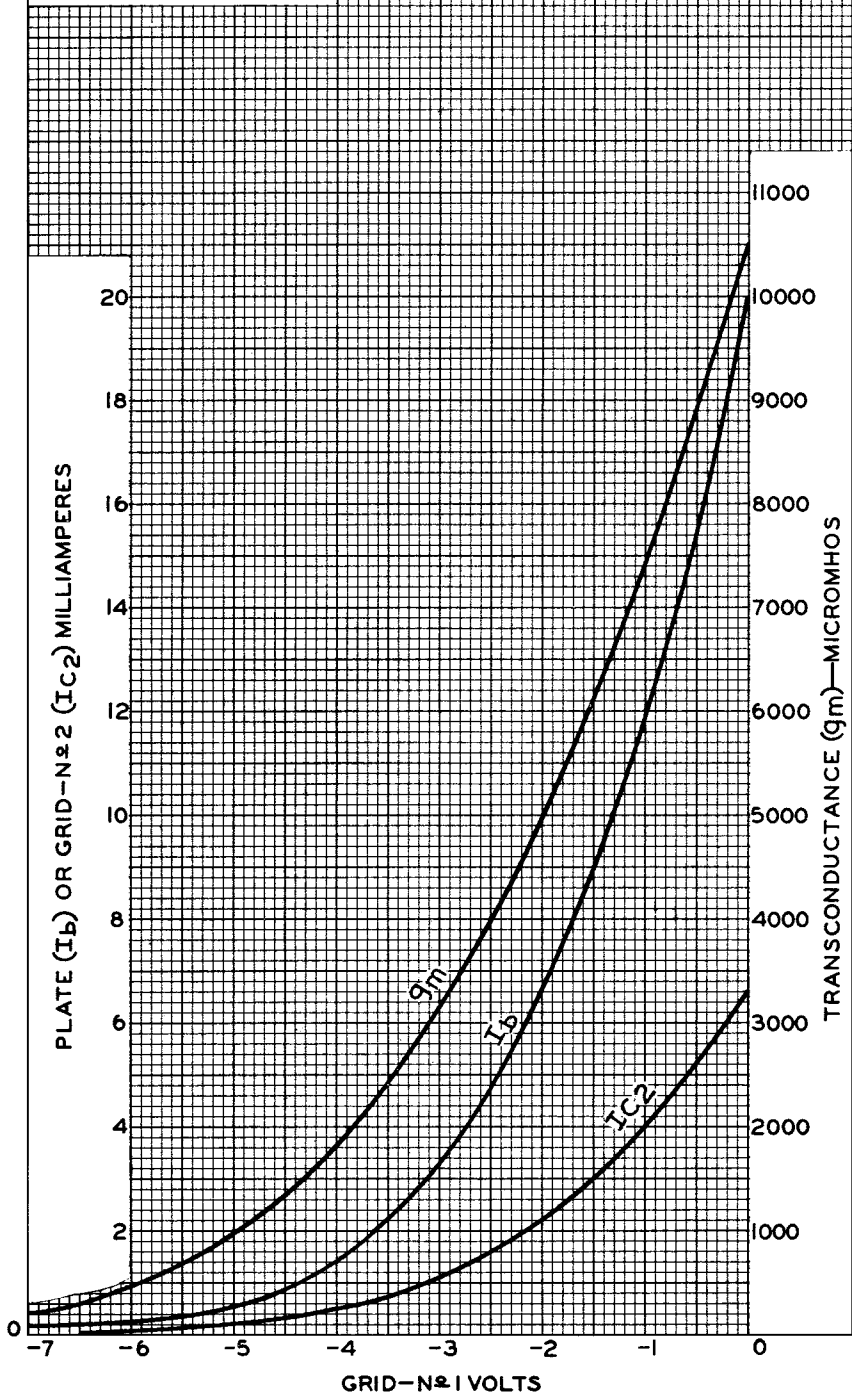
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AVERAGE CHARACTERISTICS Pentode Unit



AVERAGE CHARACTERISTICS Pentode Unit

$E_f = 6.3$ VOLTS
PLATE VOLTS = 125
GRID-N ϕ 2 VOLTS = 125



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