

Medium-Mu Triode— Sharp-Cutoff Pentode

9-PIN MINIATURE TYPE

With Heater Having Controlled Warm-Up Time

GENERAL DATA

Electrical:

Heater, for Unipotential Cathodes:

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

Direct Interelectrode Capacitances:

	<i>Without External Shield</i>	<i>With External Shield^a</i>	
<i>Triode Unit:</i>			
Grid to plate	1.7	1.7	μf ←
Grid to cathode, pentode cathode & pentode grid No.3 & internal shield, and heater.	3	3.2	μf
Plate to cathode, pentode cathode & pentode grid No.3 & internal shield, and heater.	1.4	1.9	μf
<i>Pentode Unit:</i>			
Grid No.1 to plate.	0.02 max.	0.01 max.	μf
Grid No.1 to cathode & grid No.3 & internal shield, grid-No.2, and heater.	5	5	μf
Plate to cathode & grid No.3 & internal shield, grid No.2, and heater.	2.6	3.4	μf
Heater to cathode (Each unit)	3	3 ^b	μf

Characteristics, Class A₁ Amplifier:

	<i>Triode Unit</i>	<i>Pentode Unit</i>	
Plate-Supply Voltage.	150	125	volts
Grid-No.2 Voltage	—	125	volts
Grid-No.1 Voltage	—	—1	volt
Cathode Resistor.	56	—	ohms
Amplification Factor.	40	—	
Plate Resistance (Approx.)	5000	200000	ohms ←
Transconductance.	8500	6400	μmhos
Plate Current	18	12	ma
Grid-No.2 Current	—	4	ma
Grid-No.1 Voltage (Approx.) for plate $\mu a = 10$	—12	—9	volts

← Indicates a change.

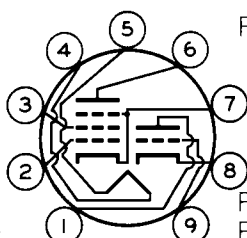


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Mechanical:

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

AMPLIFIER — Class A₁

Maximum Ratings, Design-Maximum Values:

	Triode Unit	Pentode Unit	
PLATE VOLTAGE	330 max.	330 max.	volts
GRID-No.2 (SCREEN-GRID) SUPPLY VOLTAGE.	-	330 max.	volts
GRID-No.2 VOLTAGE	-	See <i>Grid-No.2 Input</i>	
<i>Rating Chart</i> 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 <i>Grid-No.2 Input</i>	
<i>Rating Chart</i> at front of Receiving Tube Section			
→ PLATE DISSIPATION	2.5 max.	3.1 max.	watts
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode. . .	200 max.	200 max.	volts
Heater positive with respect to cathode. . .	200 ^c max.	200 ^c max.	volts

^a With external shield JEDEC No.315 connected to cathode of unit under test except as noted.

^b With external shield JEDEC No.315 connected to ground.

^c The dc component must not exceed 100 volts.

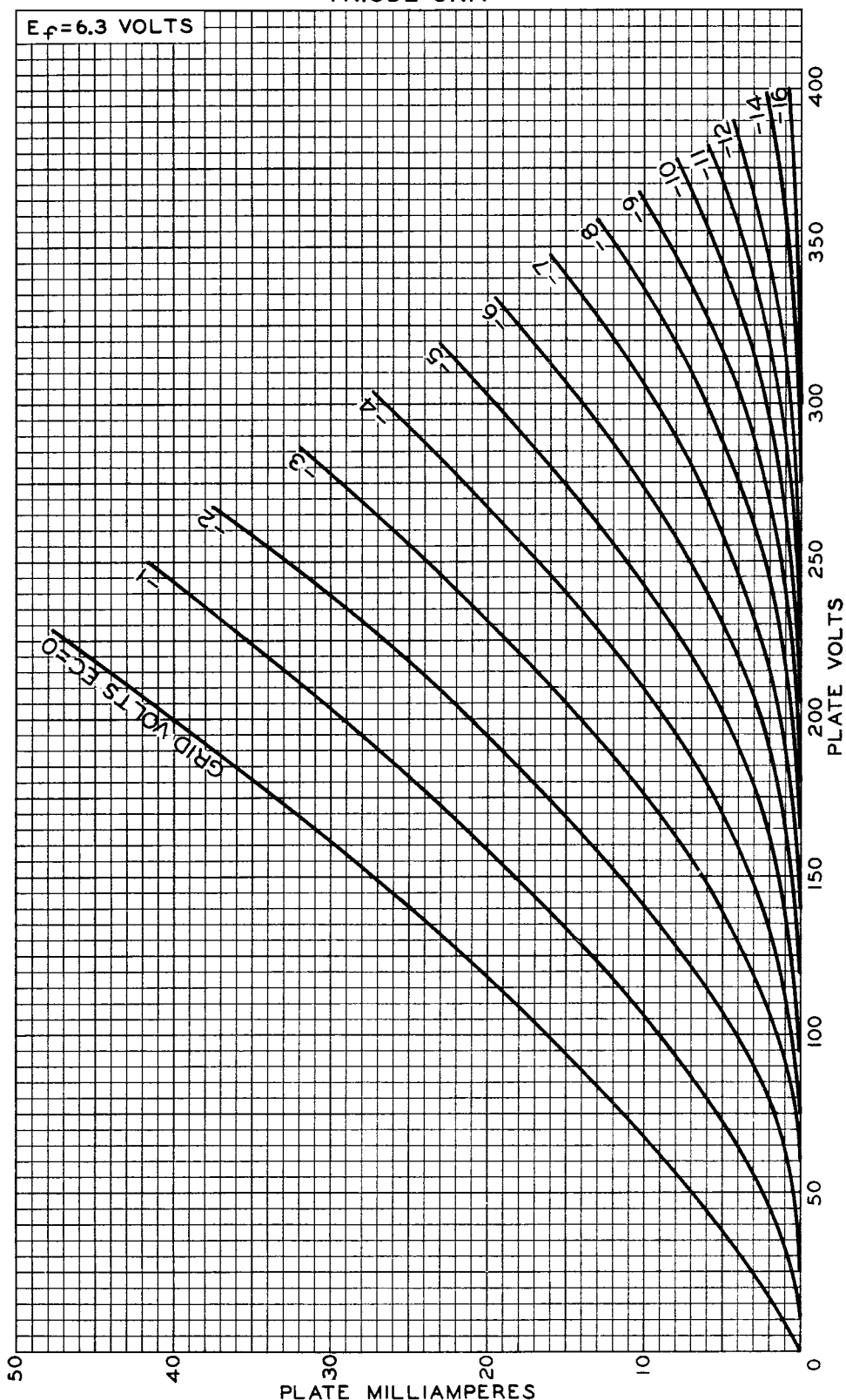
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AVERAGE PLATE CHARACTERISTICS TRIODE UNIT

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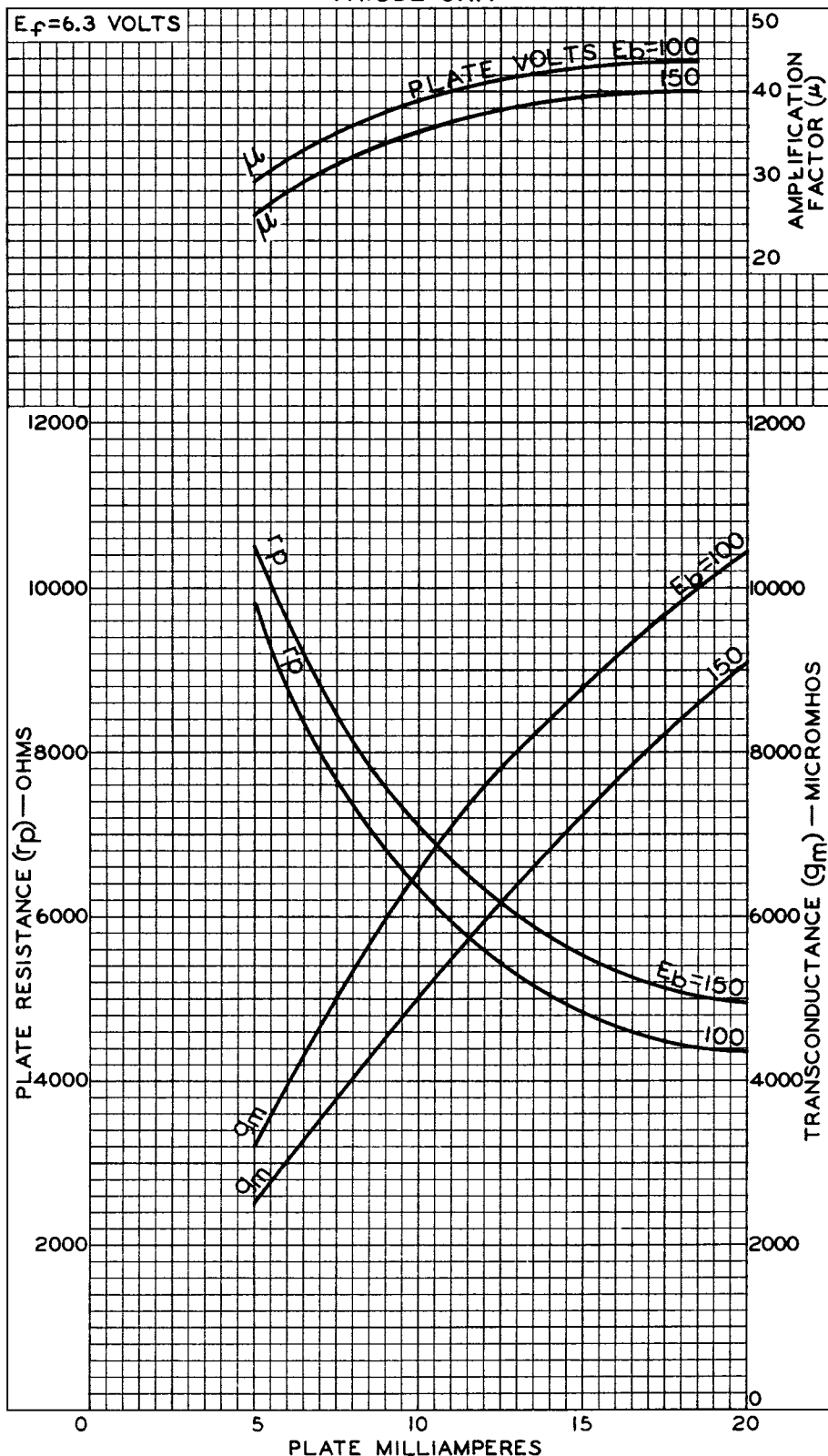
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AVERAGE CHARACTERISTICS

TRIODE UNIT



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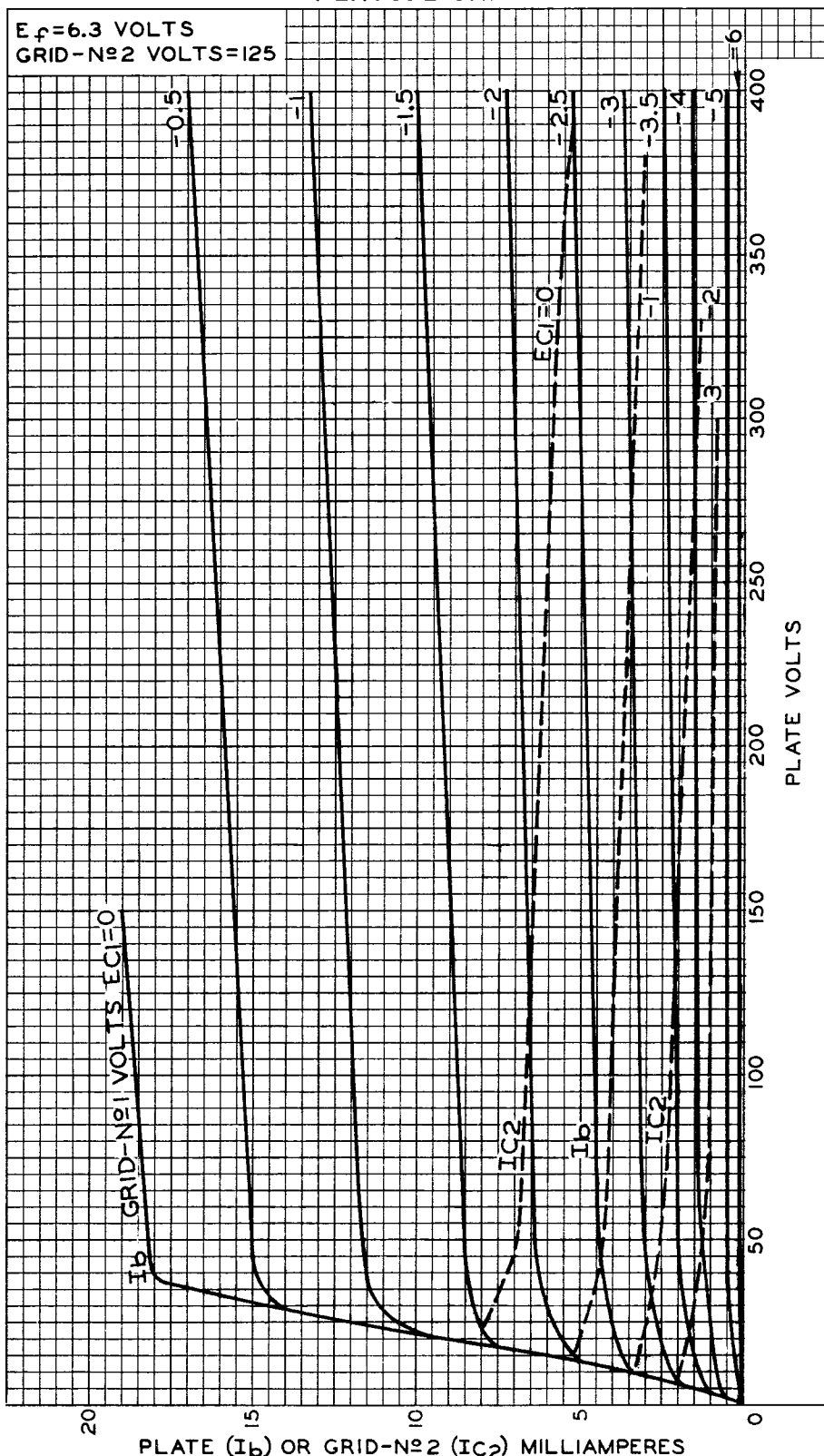


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AVERAGE CHARACTERISTICS PENTODE UNIT

$E_f = 6.3$ VOLTS
GRID-No2 VOLTS=125



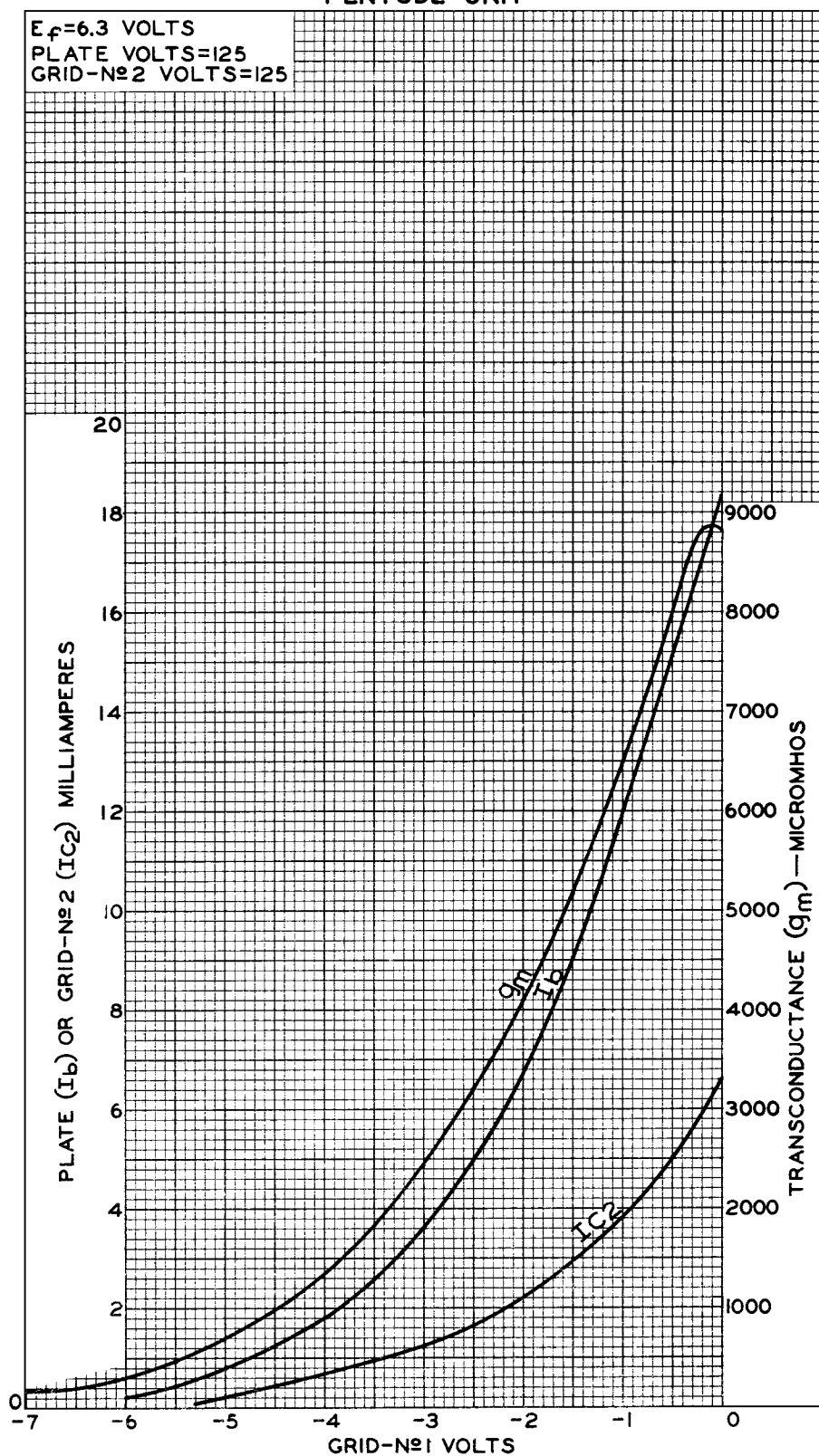
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AVERAGE CHARACTERISTICS
PENTODE UNIT

$E_f = 6.3$ VOLTS
PLATE VOLTS = 125
GRID-№2 VOLTS = 125



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