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MEDIUM-MU TRIODE— SHARP-CUTOFF PENTODE

9-PIN MINIATURE TYPE

*Intended for use in equipment having
series heater-string arrangement*

GENERAL DATA

Electrical:

Heater, for Unipotential Cathodes:

Voltage	6.3	ac or dc volts
Current	0.6	amp
Warm-up time (Average)	11	sec

For definition of heater warm-up time and method of determining it, see sheet HEATER WARM-UP TIME MEASUREMENT at front of this Section.

Direct Interelectrode Capacitances:⁰

Triode Unit:

Grid to plate	2.2	$\mu\mu\text{f}$
Grid to cathode and heater.	2.6	$\mu\mu\text{f}$
Plate to cathode and heater	0.34	$\mu\mu\text{f}$

Pentode Unit:

Grid No.1 to plate.	0.044	$\mu\mu\text{f}$
Grid No.1 to cathode & grid No.3 & internal shield, grid No.2, and heater.	7.5	$\mu\mu\text{f}$
Plate to cathode & grid No.3 & internal shield, grid No.2, and heater.	2.4	$\mu\mu\text{f}$
Triode grid to pentode plate.	0.022 max.	$\mu\mu\text{f}$
Pentode grid No.1 to triode plate	0.006 max.	$\mu\mu\text{f}$
Pentode plate to triode plate	0.12 max.	$\mu\mu\text{f}$

Characteristics, Class A₁ Amplifier:

	Triode Unit	Pentode Unit	
Plate-Supply Voltage.	150	200	volts
Grid-No.2-Supply Voltage.	—	125	volts
Cathode Resistor.	150	82	ohms
Amplification Factor.	40	—	
Plate Resistance (Approx.).	8200	150000	ohms
Transconductance.	4900	7000	μmhos
Plate Current	9	15	ma
Grid-No.2 Current	—	3.4	ma
Grid-No.1 Voltage (Approx.) for plate current of 100 μamp	-6.5	-8	volts

Mechanical:

Mounting Position	Any
Maximum Overall Length.	2-5/8"
Maximum Seated Length	2-3/8"
Length, Base Seat to Bulb Top (Excluding tip)	2" $\pm$ 3/32"

⁰ Without external shield.



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Maximum Diameter 7/8"
 Dimensional Outline. See General Section
 Bulb T-6-1/2
 Base Small-Button Noval 9-Pin (JETEC No. E9-1)
 Basing Designation for BOTTOM VIEW 9DX

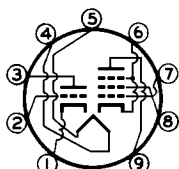
Pin 1 - Triode
 Cathode

Pin 2 - Triode
 Grid

Pin 3 - Triode
 Plate

Pin 4 - Heater

Pin 5 - Heater



Pin 6 - Pentode
 Cathode,
 Grid No. 3,
 Internal
 Shield

Pin 7 - Pentode
 Grid No. 1

Pin 8 - Pentode
 Grid No. 2

Pin 9 - Pentode
 Plate

AMPLIFIER - Class A₁

Maximum Ratings, Design-Center Values:

	Triode Unit	Pentode Unit	
PLATE VOLTAGE.	300 max.	300 max.	volts
GRID-No. 2 (SCREEN) SUPPLY VOLTAGE.	-	300 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
PLATE DISSIPATION.	2.5 max.	3 max.	watts

GRID-No. 2 INPUT:

For grid-No. 2 voltages
 up to 150 volts. - 1 max. watt

For grid-No. 2 voltages
 between 150 and
 300 volts. - See Grid-No. 2 Input

Rating Chart at front of Receiving Tube Section

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

[▲] The dc component must not exceed 100 volts.



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Maximum Circuit Values:

	<i>Triode Unit</i>	<i>Pentode Unit</i>	
Grid-No.1-Circuit Resistance:			
For fixed-bias operation. .	0.5 max.	0.25 max.	megohm
For cathode-bias operation.	1.0 max.	1.0 max.	megohm

OPERATING CONSIDERATIONS

Because the *internal shield* is connected to the cathode and grid No.3, the impedance in the cathode circuit should be kept as low as possible to minimize cross-coupling effects.

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AVERAGE CHARACTERISTICS TRIODE UNIT

$E_f = 6.3$ VOLTS

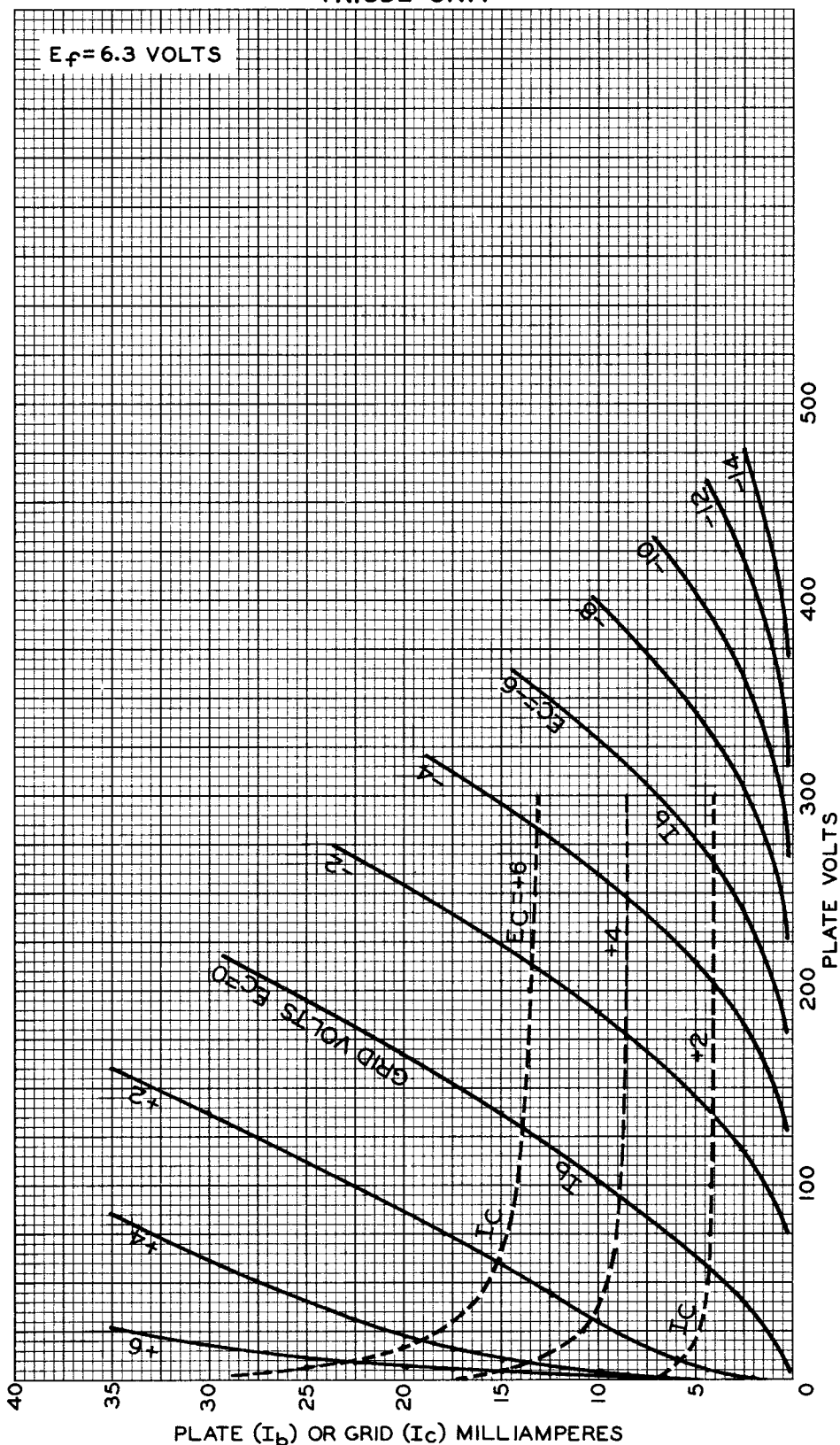


PLATE (I_b) OR GRID (I_c) MILLIAMPERES

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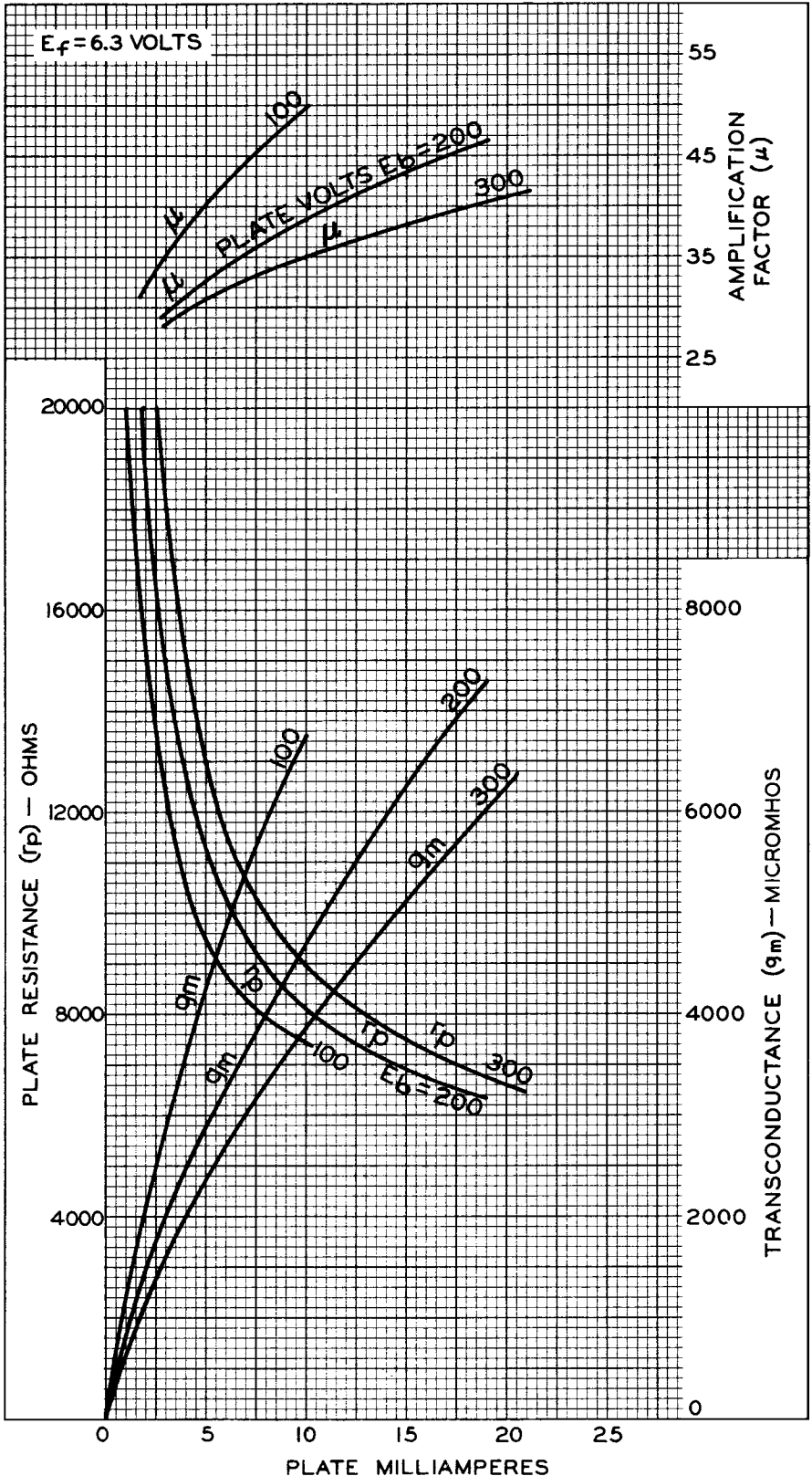
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AVERAGE CHARACTERISTICS TRIODE UNIT

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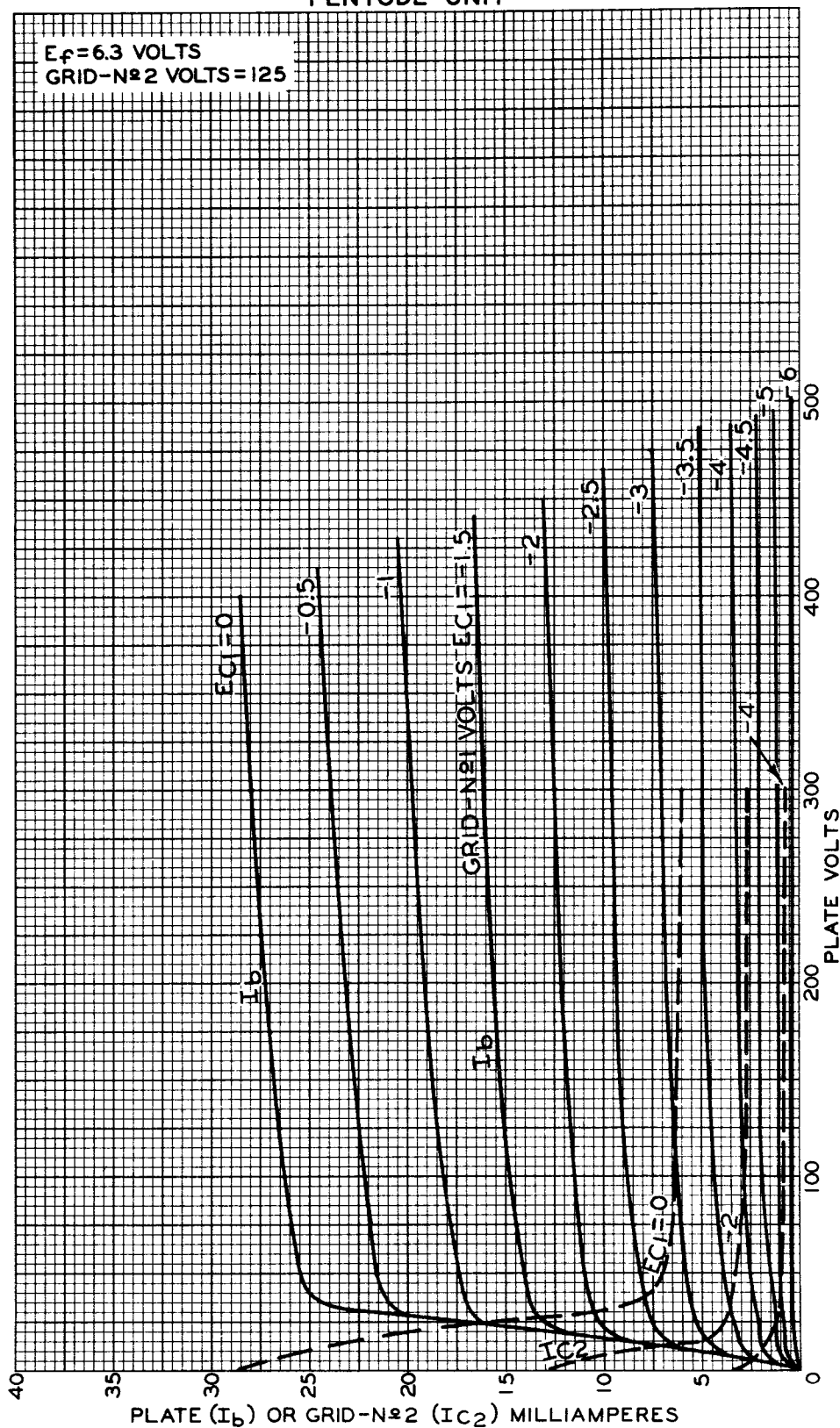
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AVERAGE CHARACTERISTICS PENTODE UNIT



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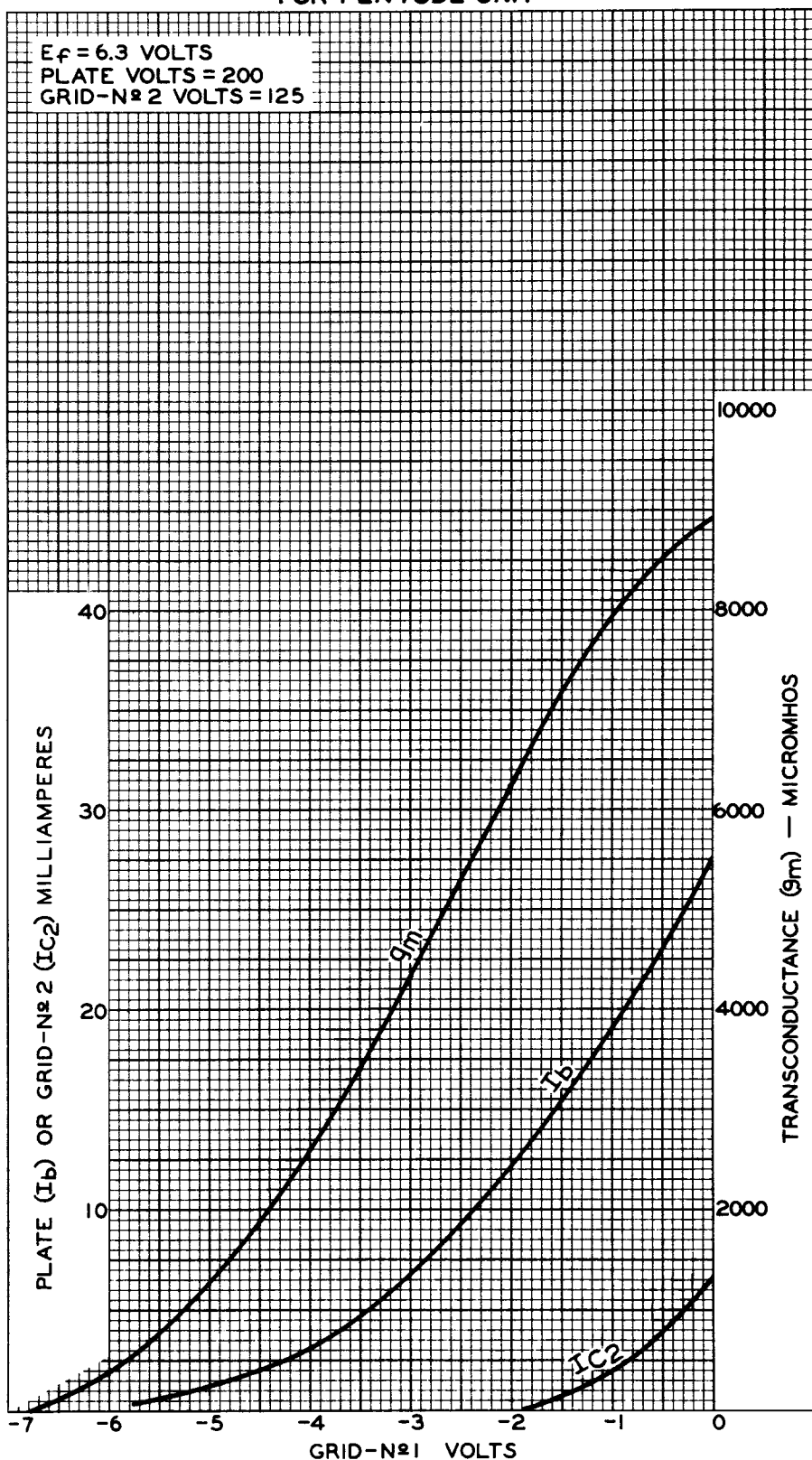


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AVERAGE CHARACTERISTICS FOR PENTODE UNIT

$E_f = 6.3$ VOLTS
PLATE VOLTS = 200
GRID-Nº 2 VOLTS = 125



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