

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	$0.6 \pm 6\%$	amp
Warm-up time (Average)	11	sec

Direct Interelectrode Capacitances:^a

Triode Unit:

Grid to plate	2.2	μmf
Grid to cathode and heater	2.6	μmf
Plate to cathode and heater	0.34	μmf

Pentode Unit:

Grid No.1 to plate	0.06	μmf
Grid No.1 to cathode & internal shield & grid No.3, grid No.2, and heater	7.5	μmf
Plate to cathode & internal shield & grid No.3, grid No.2, and heater	3.4	μmf
Triode grid to pentode plate	0.022 max.	μmf
Pentode grid No.1 to triode plate	0.006 max.	μmf
Pentode plate to triode plate	0.12 max.	μmf

Characteristics, Class A₁ Amplifier:

	Triode Unit	Pentode Unit	
Plate Supply Voltage	150	40 200	volts
Grid-No.2 Supply Voltage	—	125 125	volts
Cathode Resistor	150	— 82	ohms
Amplification Factor	43	— —	
Plate Resistance (Approx.)	8100	— 100000	ohms
Transconductance	5300	— 8000	μmhos
Plate Current	9.5	28 ^b 17	ma
Grid-No.2 Current	—	10 ^b 3.4	ma
Grid-No.1 Voltage (Approx.) for plate $\mu\text{a} = 100$	—6.5	— —7.5	volts

Mechanical:

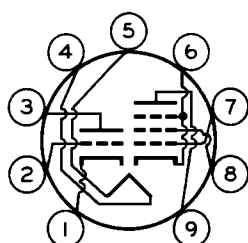
Operating Position	Any
Maximum Overall Length	2-5/8"
Maximum Seated Length	2-3/8"
Length, Base Seat to Bulb Top (Excluding tip)	2" $\pm$ 3/32"
Diameter	0.750" to 0.875"
Dimensional Outline	See General Section
Bulb	T6-1/2
Base	Small-Button Noval 9-Pin (JEDEC No.E9-1)



6AU8A

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-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	—	1 max.	watt
For grid-No. 2 voltages be- tween 165 and 330 volts	—	See <i>Grid-No. 2 Input</i> <i>Rating Chart</i> at front of Receiving Tube Section	
PLATE DISSIPATION	2.8 max.	3.3 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

Maximum Circuit Values:

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

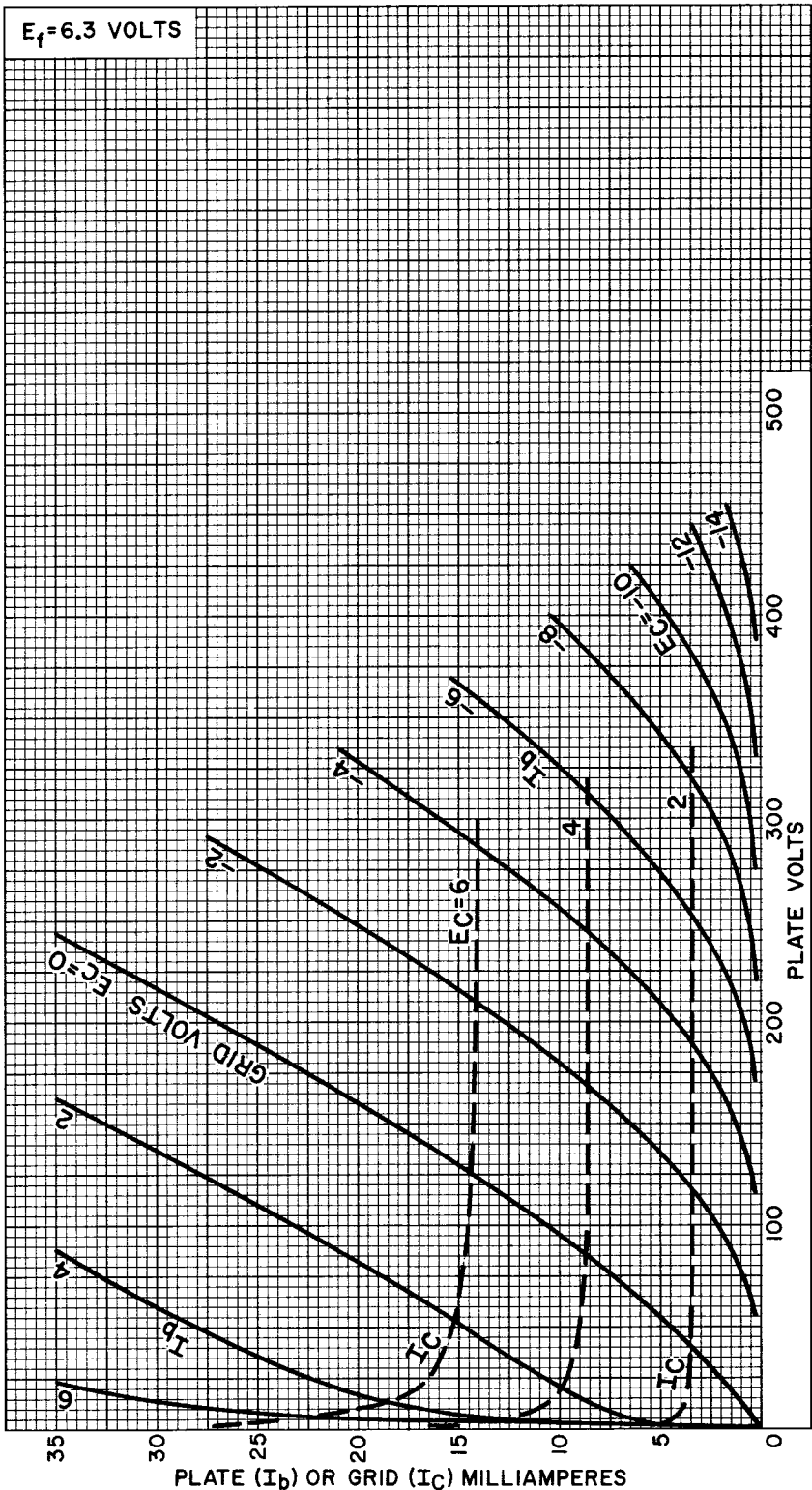
^a without external shield.

^b This value can be measured by a method involving a recurrent wave form such that the maximum ratings of the tube will not be exceeded.

^c The dc component must not exceed 100 volts.



AVERAGE CHARACTERISTICS Triode Unit

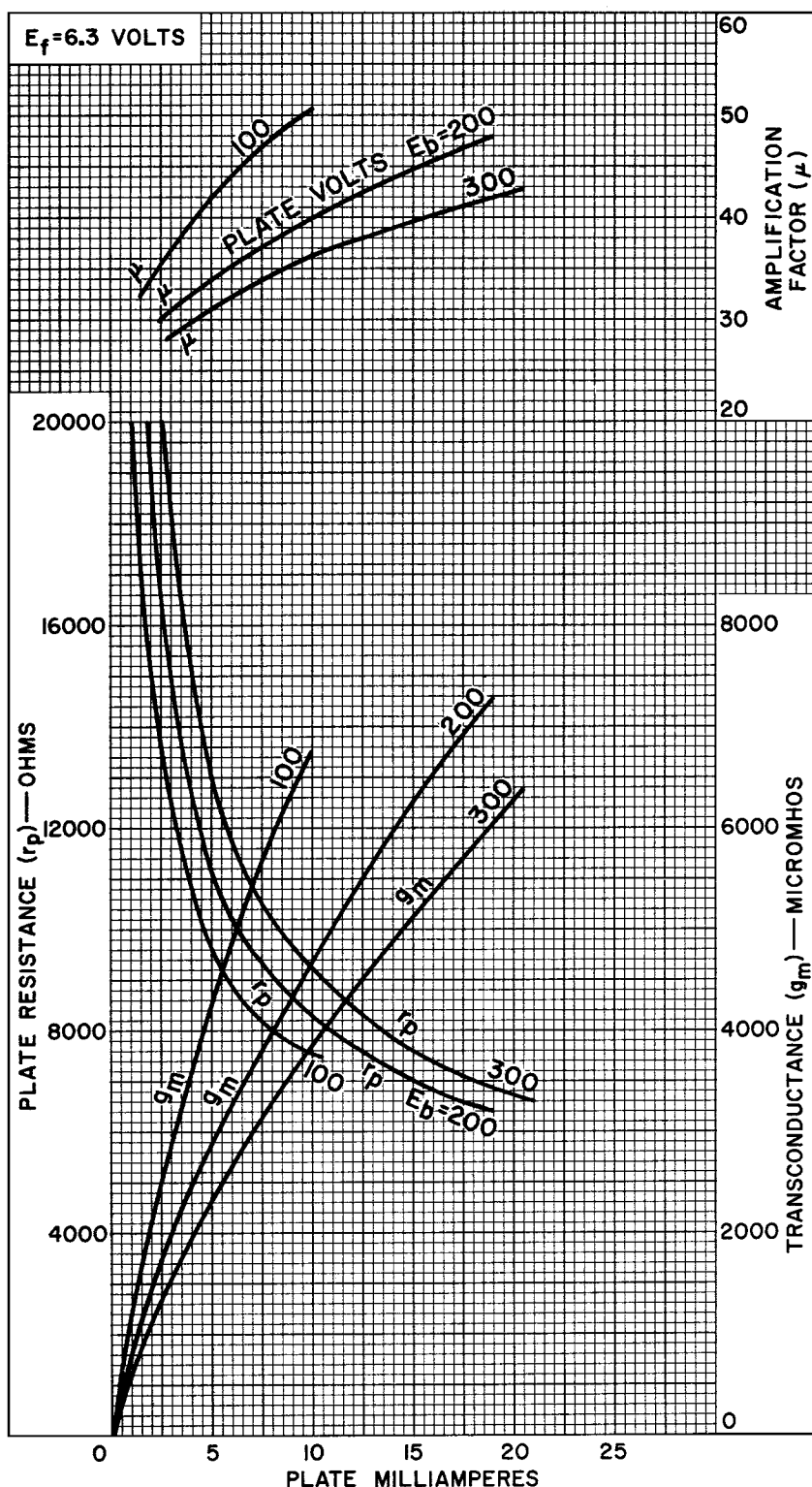


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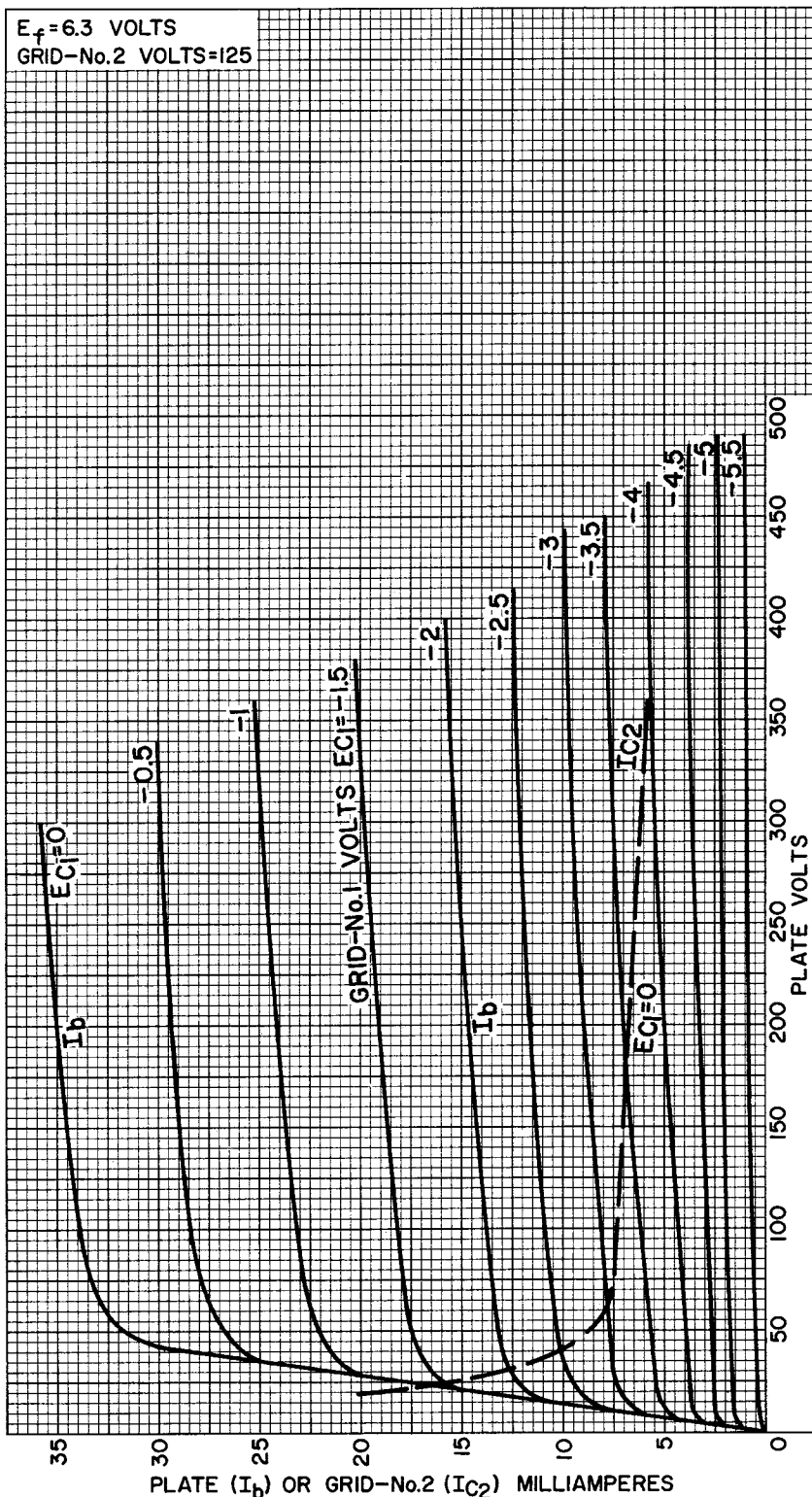
AVERAGE CHARACTERISTICS Triode Unit



92CM-11144RI



AVERAGE CHARACTERISTICS Pentode Unit

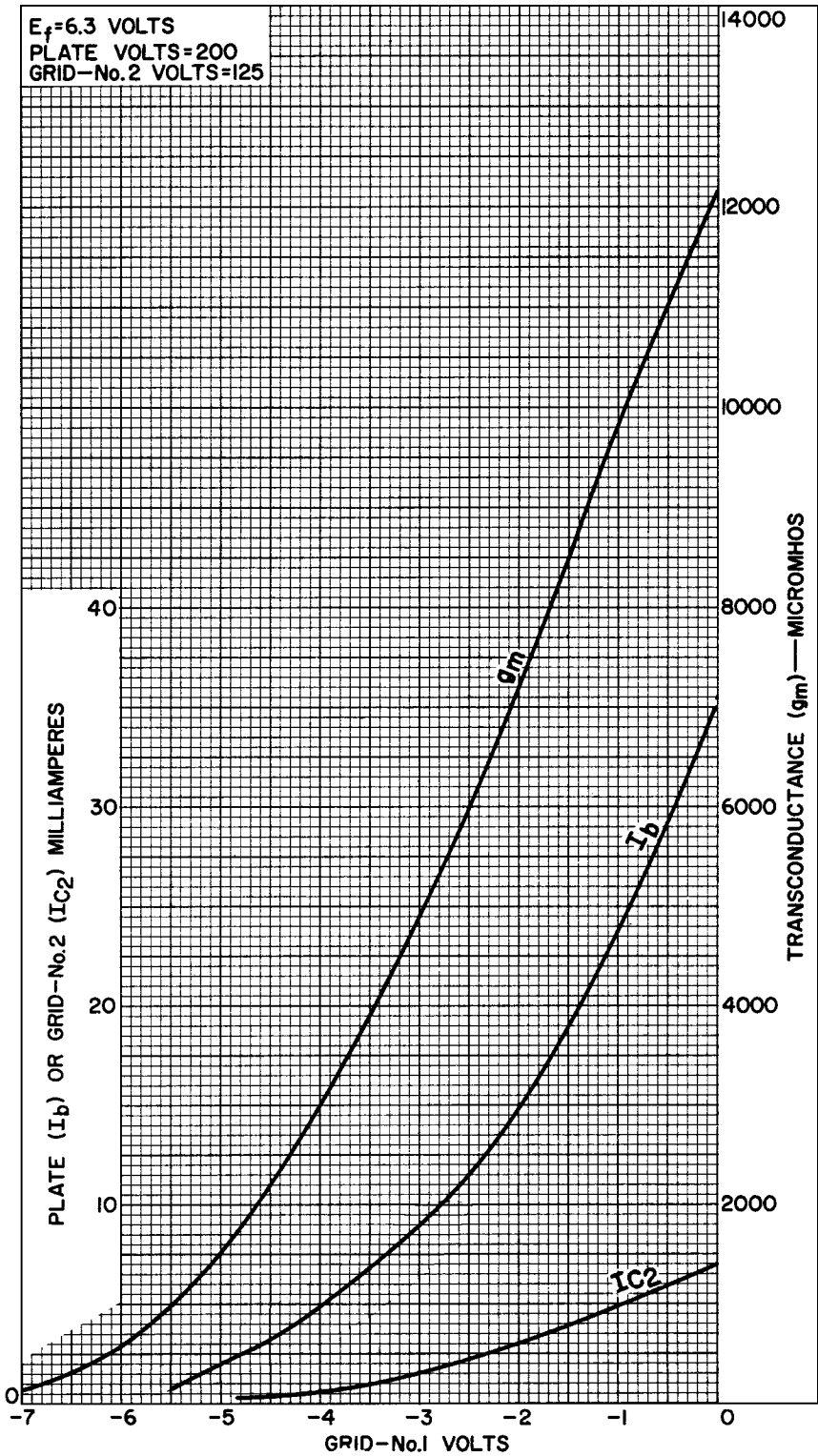


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AVERAGE CHARACTERISTICS Pentode Unit



92CM—11142

