

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:▲

Triode Unit:

Grid to plate	1.5	μμf
Grid to cathode and heater	2	μμf
Plate to cathode and heater	0.26	μμf

Pentode Unit:

Grid No.1 to plate	0.04 max.	μμf
Grid No.1 to cathode & grid No.3 & internal shield, grid No.2, and heater	7	μμf
Plate to cathode & grid No.3 & internal shield, grid No.2, and heater	2.4	μμf
Triode grid to pentode plate	0.02 max.	μμf
Pentode grid No.1 to triode plate	0.02 max.	μμf
Pentode plate to triode plate	0.15 max.	μμf

Characteristics, Class A₁ Amplifier:

	Triode Unit	Pentode Unit	
Plate Supply Voltage	150	125	volts
Grid-No.2, Supply Voltage	-	125	volts
Grid-No.1 Supply Voltage	-3	0	volts
Cathode Resistor	0	56	ohms
Amplification Factor	21	-	
Plate Resistance (Approx.)	4700	170000	ohms
Transconductance	4500	7800	μmhos
Plate Current	15	12	ma
Grid-No.2 Current	-	3.8	ma
Grid-No.1 Voltage (Approx.) for plate μa = 20	-17	-6	volts
Grid-No.1 Voltage (Approx.) for plate ma. = 1.6, and cathode resistor (ohms) = 0	-	-3	volts

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" ± 3/32"



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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. 9DA

Pin 1 - Triode Plate
 Pin 2 - Triode Grid
 Pin 3 - Triode Cathode
 Pin 4 - Heater
 Pin 5 - Heater
 Pin 6 - Pentode Plate
 Pin 7 - Pentode Grid No.2



Pin 8 - Pentode Grid No.1
 Pin 9 - Pentode Grid No.3, Pentode Cathode, Internal Shield

AMPLIFIER — Class A₁

Maximum Ratings, Design-Maximum Values:

	<i>Triode Unit</i>	<i>Pentode Unit</i>	
PLATE VOLTAGE	330 max.	330 max.	volts
GRID-No.2 (SCREEN-GRID) SUPPLY VOLTAGE.	-	330 max.	volts
GRID-No.2 VOLTAGE	-	<i>See Grid-No.2 Input</i>	
<i>Rating Chart at front of Receiving Tube Section</i>			
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	-	<i>See Grid-No.2 Input</i>	
<i>Rating Chart at front of Receiving Tube Section</i>			
PLATE DISSIPATION	2.8 max.	2.3 max.	watts
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode.	200 max.	200 max.	volts
Heater positive with respect to cathode.	200 [▲] max.	200 [▲] max.	volts

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 max.	1 max.	megohm

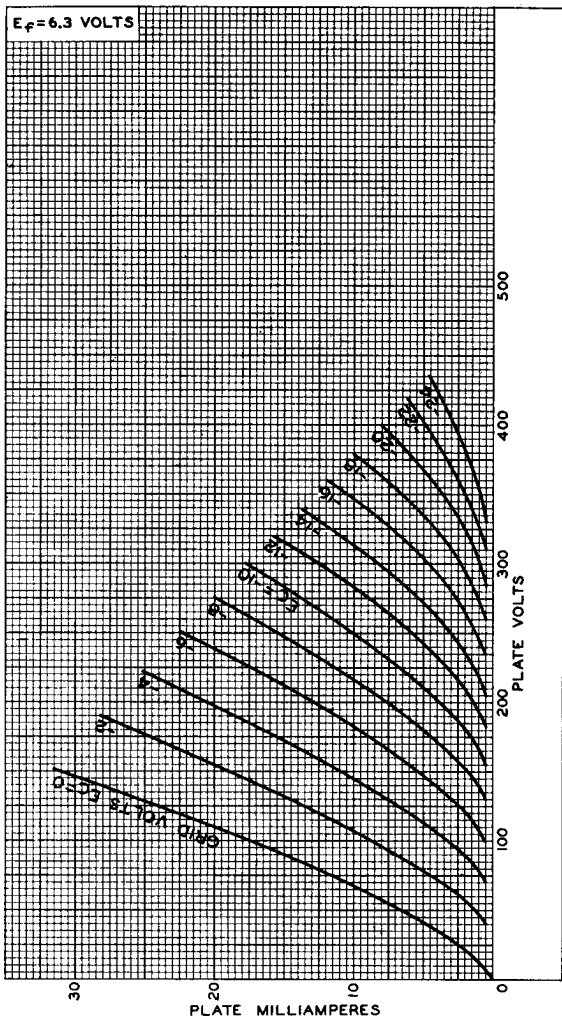
▲ Without external shield.

● The dc component must not exceed 100 volts.

* If either unit is operated at maximum-rated conditions, grid-No.1-circuit resistances for both units should not exceed the stated values.



AVERAGE PLATE CHARACTERISTICS Triode Unit

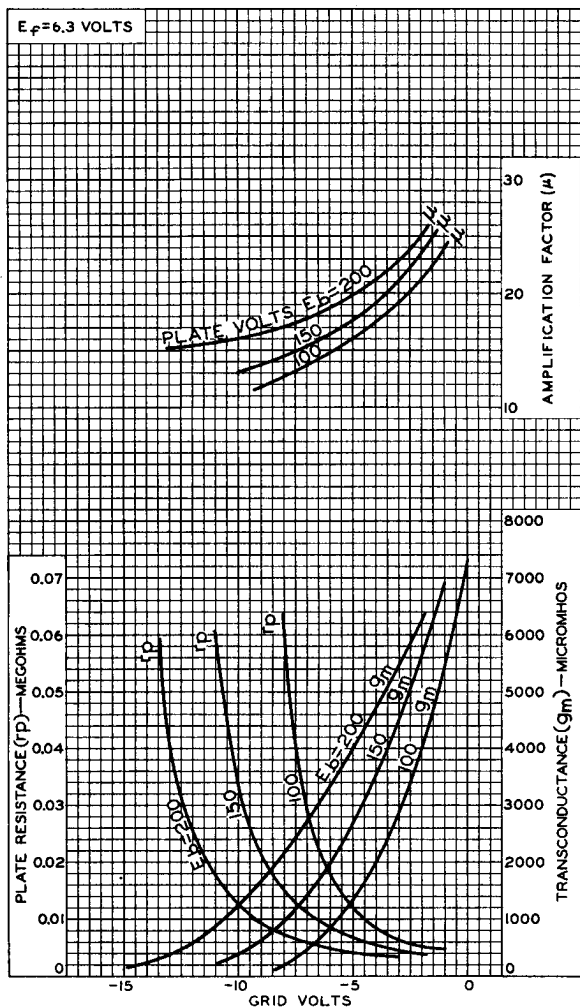


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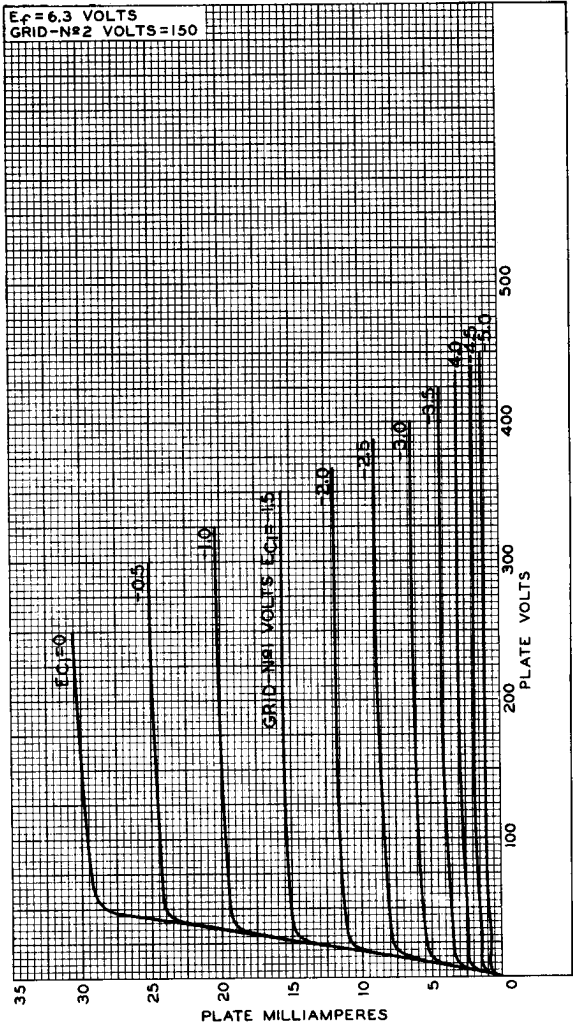
AVERAGE CHARACTERISTICS Triode Unit



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AVERAGE PLATE CHARACTERISTICS Pentode Unit



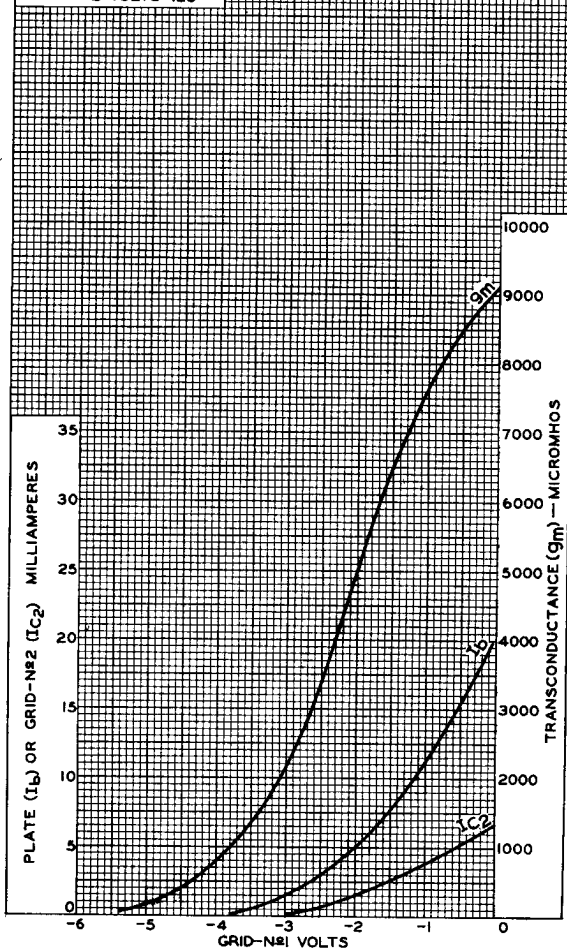
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AVERAGE CHARACTERISTICS Pentode Unit

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



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