

High-Mu Twin Triode

9-PIN MINIATURE TYPE

For High-Fidelity Audio-Amplifier Applications Critical as to Noise and Hum

GENERAL DATA

Electrical:

Heater, for Unipotential Cathodes:

Voltage (AC or DC)	6.3 $\pm$ 10%	volts
Current at 6.3 volts	0.3	amp

Direct Interelectrode Capacitances

(Each Unit, Approx.):

Grid to plate	1.5	μ f
Grid to cathode and heater	1.6	μ f
Plate to cathode and heater	0.2	μ f

Equivalent Noise and Hum Voltage

(Referenced to Grid, Each Unit):

Average Value (RMS)	1.8	μ volts
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Measured in "true rms" units under the following conditions: Heater volts (AC)= 6.3; center-tap of heater transformer connected to ground; plate supply volts (DC)= 250; plate load resistor (megohms)= 0.1; cathode resistor (ohms)= 2700; cathode bypass capacitor (μ f)= 100; grid resistor (ohms)= 0; amplifier frequency range 25 to 10000 cps.

Characteristics, Class A₁ Amplifier (Each Unit):

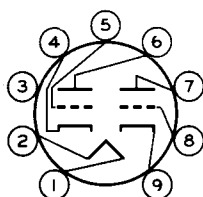
Plate Voltage	100	250	volts
Grid Voltage	-1	-2	volts
Amplification Factor	100	100	
Plate Resistance (Approx.)	80000	62500	ohms
Transconductance	1250	1600	μ mhos
Plate Current	0.5	1.2	ma

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 <i>General Section</i>
Bulb	T6-1/2
Base	Small-Button Noval 9-Pin (JEDEC No.E9-1)

Basing Designation for BOTTOM VIEW 9LS

- Pin 1-Heater
- Pin 2-Heater
- Pin 3-No Connection
- Pin 4-Cathode of Unit No.2
- Pin 5-Grid of Unit No.2



- Pin 6-Plate of Unit No.2
- Pin 7-Plate of Unit No.1
- Pin 8-Grid of Unit No.1
- Pin 9-Cathode of Unit No.1



AMPLIFIER — Class A₁

Values are for Each Unit

Maximum Ratings, Design-Maximum Values:

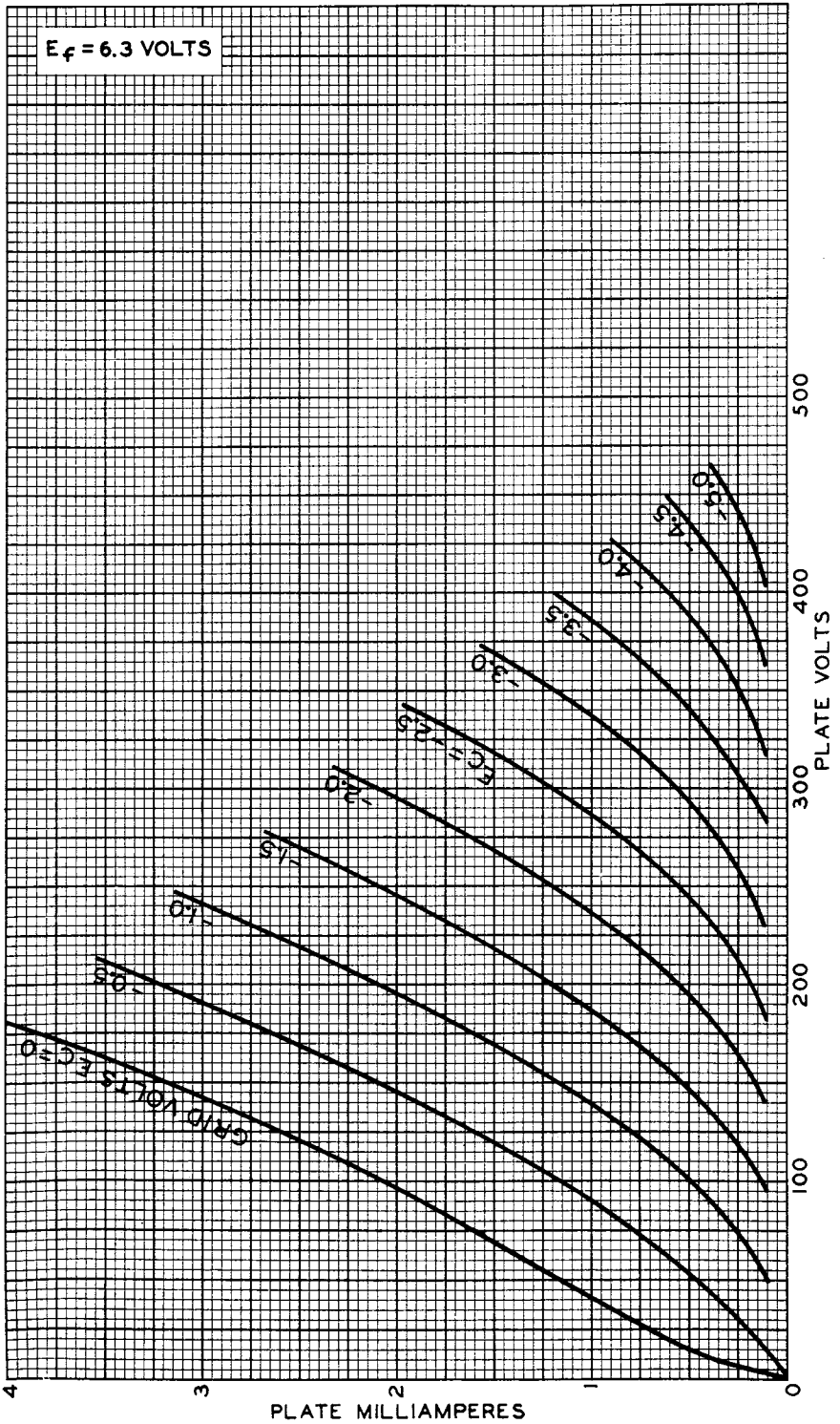
PLATE VOLTAGE.	330	max.	volts
GRID VOLTAGE:			
Negative-bias value.	55	max.	volts
Positive-bias value.	0	max.	volts
PLATE DISSIPATION.	1.2	max.	watts
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode. .	200	max.	volts
Heater positive with respect to cathode. .	200 [▲]	max.	volts

Typical Operation as Resistance-Coupled Amplifier:

*See RESISTANCE-COUPLED-AMPLIFIER CHART No. 25
at front of this Section*

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

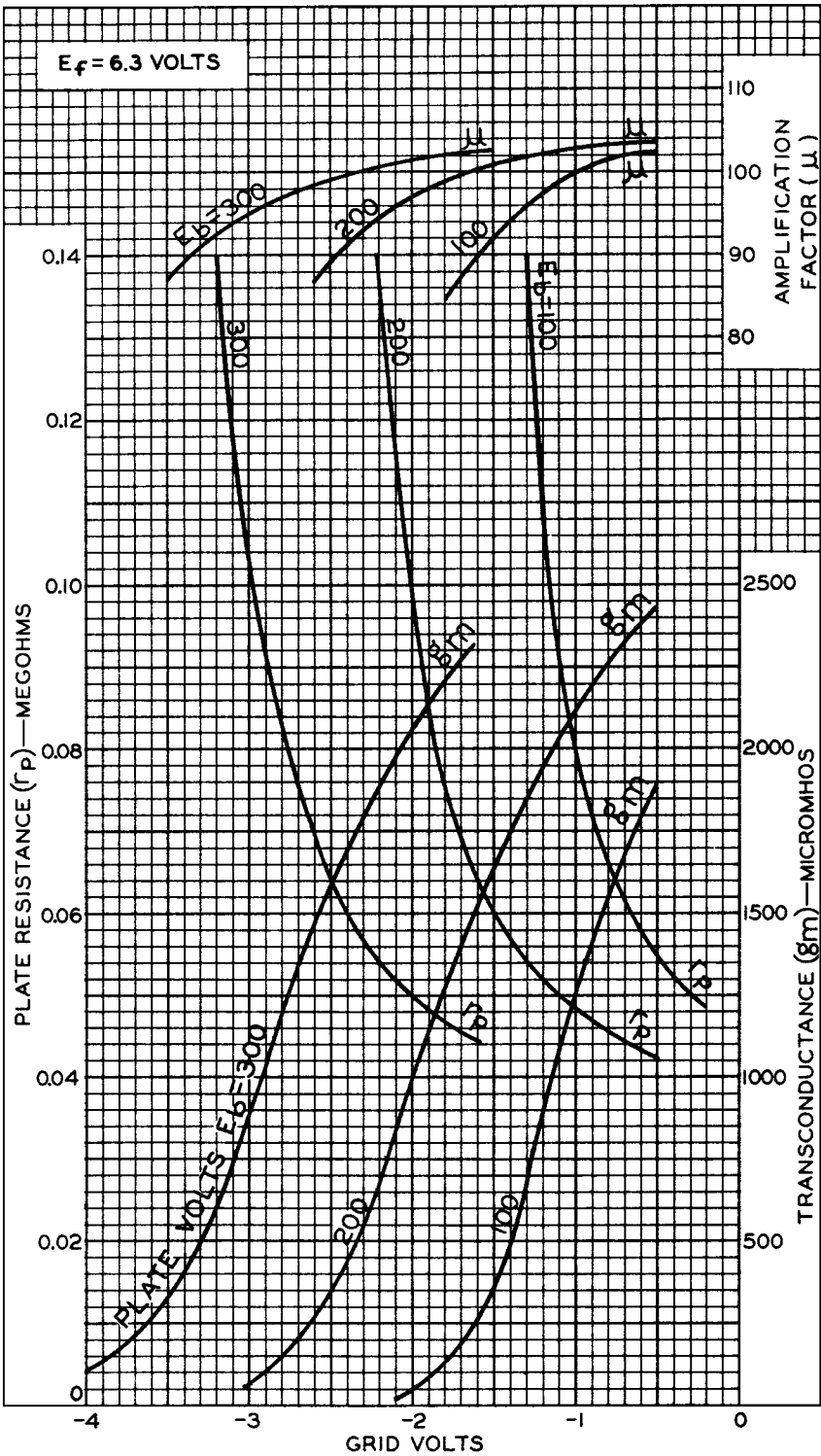
AVERAGE PLATE CHARACTERISTICS Each Unit



92CM-10470



AVERAGE CHARACTERISTICS Each Unit



92CM-10471