



7025

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HIGH-MU TWIN TRIODE

9-PIN MINIATURE TYPE

For high-fidelity audio-amplifier applications critical as to noise and hum. In other respects, the 7025 is similar to the 12AX7.

GENERAL DATA

Electrical:

Heater, for Unipotential Cathodes:

	Series	Parallel	
Heater arrangement			
Voltage.	12.6	6.3	ac or dc volts
Current.	0.15	0.3	 amp

Direct Interelectrode Capacitances (Approx.):^o

	Unit No. 1	Unit No. 2	
Grid to plate. . .	1.7	1.7	 μf
Grid to cathode and heater . . .	1.6	1.6	 μf
Plate to cathode and heater . . .	0.46	0.34	 μf

Equivalent-Noise and Hum Voltage (Referenced to Grid):

Values are for Each Unit

Average Value (RMS). 1.8 microvolts

Measured in "true rms" units under the following conditions:
 heater volts = 6.3 ac (parallel connection), center-tap of
 heater transformer connected to ground, dc plate-supply volts
 = 250, plate load resistor (megohms) = 0.1, cathode resistor
 (ohms) = 2700, cathode-bypass capacitor (μf) = 100, grid
 resistor (ohms) = 0, and amplifier covering frequency range
 between 25 and 10,000 cps.

Maximum Value (RMS). 7 microvolts

Measured in "true rms" units under the same conditions as
 for "Average Value" except that the cathode resistor is
 unbypassed, and grid resistor (megohms) = 0.05.

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	μmhos
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 General Section
Bulb		T6-1/2

^o: See next page.



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Base Small-Button Noval 9-Pin (JEDEC No.E9-1)
 Basing Designation for BOTTOM VIEW 9A

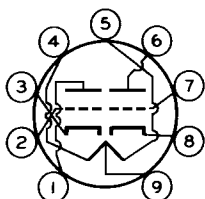
Pin 1—Plate of
 Unit No.2

Pin 2—Grid of
 Unit No.2

Pin 3—Cathode of
 Unit No.2

Pins 4 & 9—Heater of
 Unit No.2

Pins 5 & 9—Heater of
 Unit No.1



Pin 6—Plate of
 Unit No.1

Pin 7—Grid of
 Unit No.1

Pin 8—Cathode of
 Unit No.1

Pin 9—Heater
 Mid-Tap

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 (Each Unit):

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

[○] Without external shield.

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

OPERATING CONSIDERATIONS

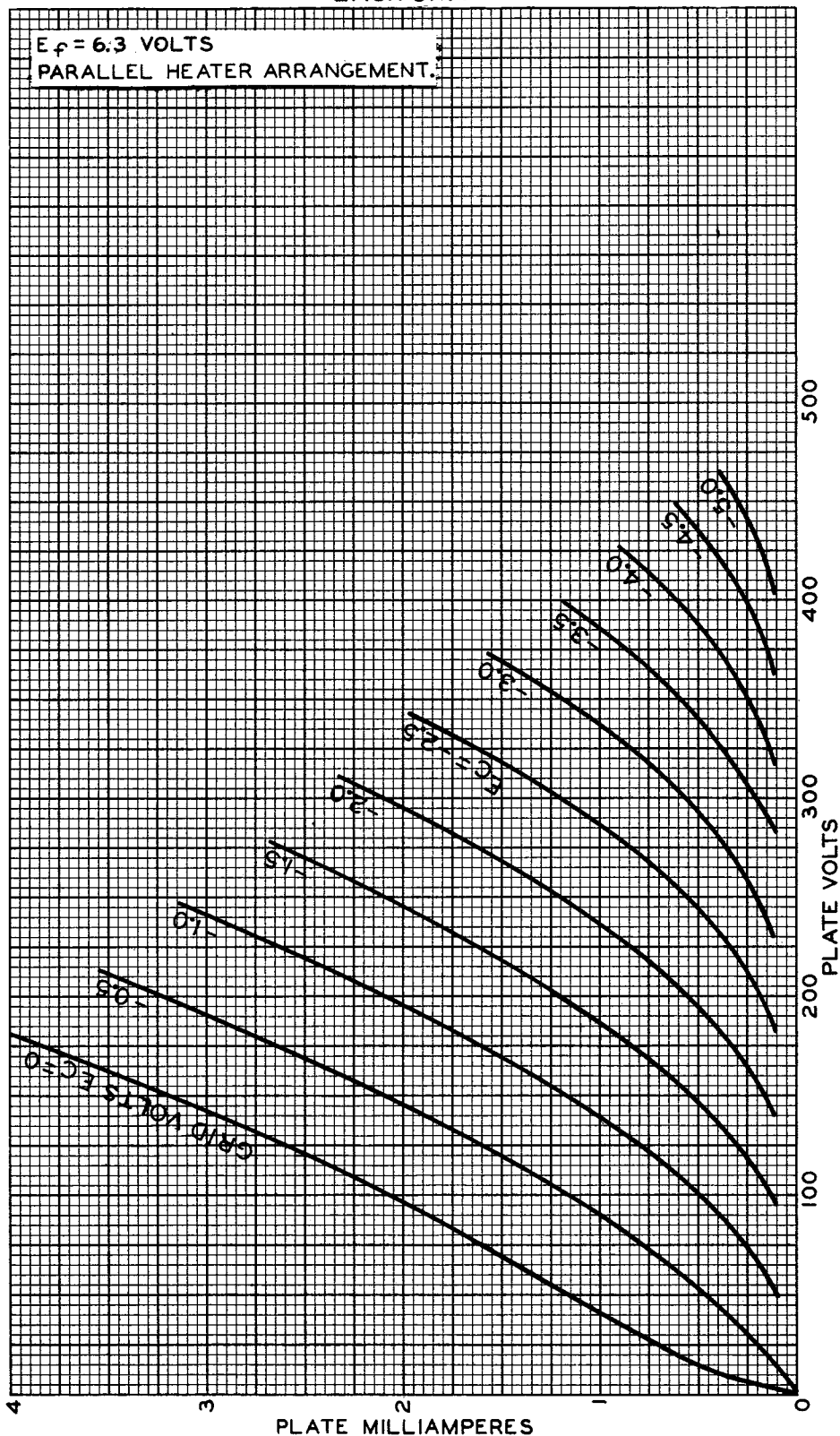
Parallel heater arrangement is recommended for use in high-gain, resistance-coupled-amplifier applications such as in the preamplifier stages of phonographs, microphones, and tape recorders. With closely paired, electrostatically shielded heater leads, a hum-balance control is unnecessary when the center-tap of the heater transformer is connected to ground. In applications where the heater-transformer winding does not have a center-tap, a 100-ohm hum-balancing potentiometer should be connected across the heater leads with the slider connected to ground.



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AVERAGE PLATE CHARACTERISTICS EACH UNIT

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RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

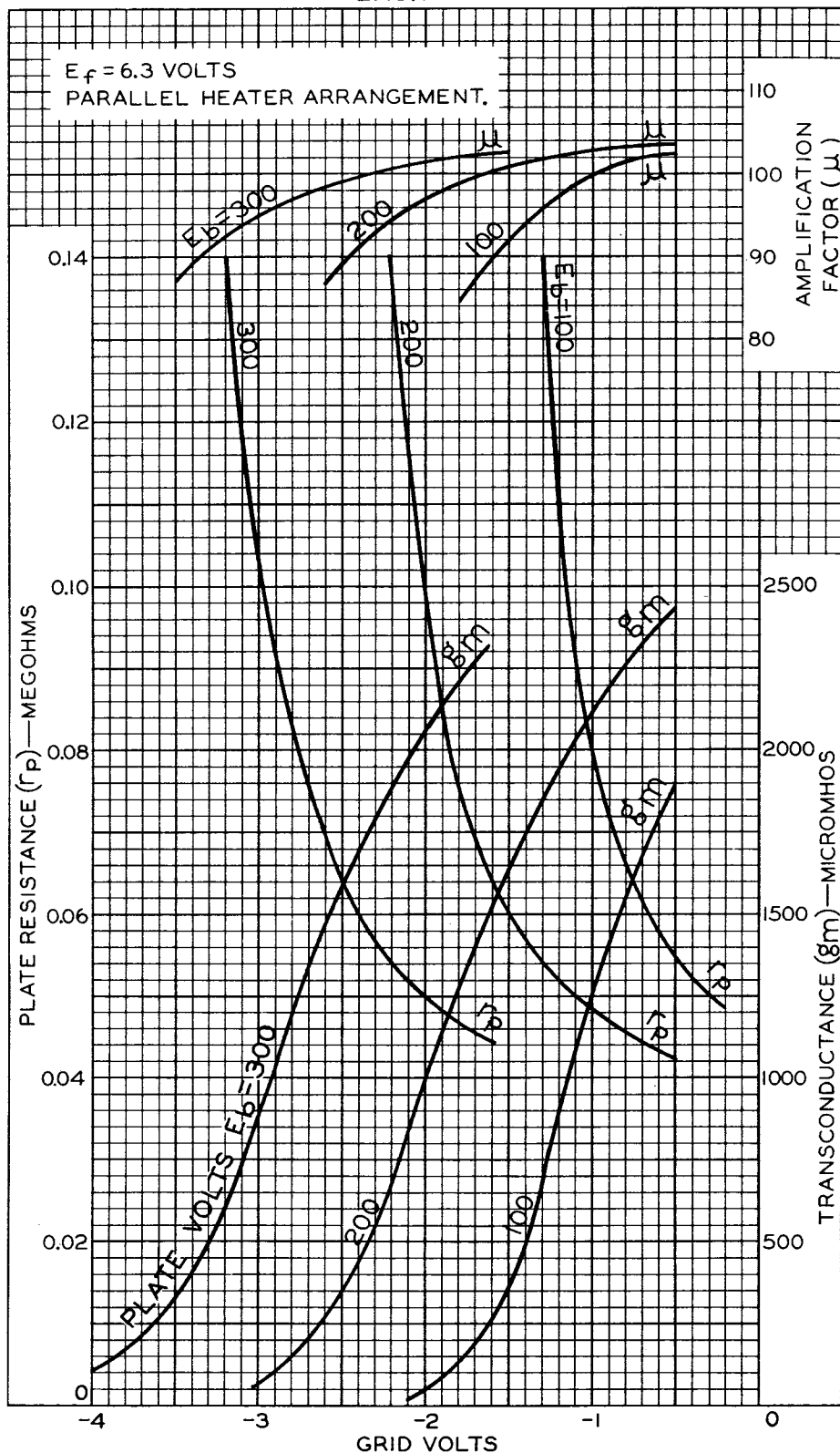
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AVERAGE CHARACTERISTICS EACH UNIT



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92CM-6880