

12AX7

High-Mu Twin Triode

9-PIN MINIATURE TYPE

GENERAL DATA

Electrical:

Heater, for Unipotential Cathodes:

Heater arrangement	<i>Series</i>	<i>Parallel</i>	
Voltage (AC or DC)	12.6	6.3 ± 10%	volts
Current	0.15 ± 6%	0.3	amp

Direct Interelectrode Capacitances (Approx.):

	<i>Without External Shield</i>	<i>With External Shield^a</i>	
Grid to plate (Each unit)	1.7	1.7	μf
Grid to cathode and heater (Each unit)	1.6	1.8	μf
Plate to cathode and heater:			
Unit No.1	0.46	1.9	μf
Unit No.2	0.34	1.9	μf

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" ± 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)
- Basing Designation for BOTTOM VIEW.9A

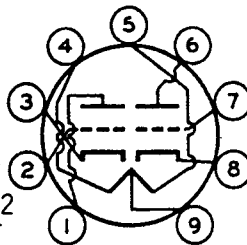
Pin 1 - Plate of Unit No.2

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 Tap

← Indicates a change.



12AX7

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 ^b	max.	volts

Typical Operation as Resistance-Coupled Amplifier:

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

- ^a With external shield JEDEC No.315 connected to cathode of unit under test.
- ^b The dc component must not exceed 100 volts.

→ Indicates a change.

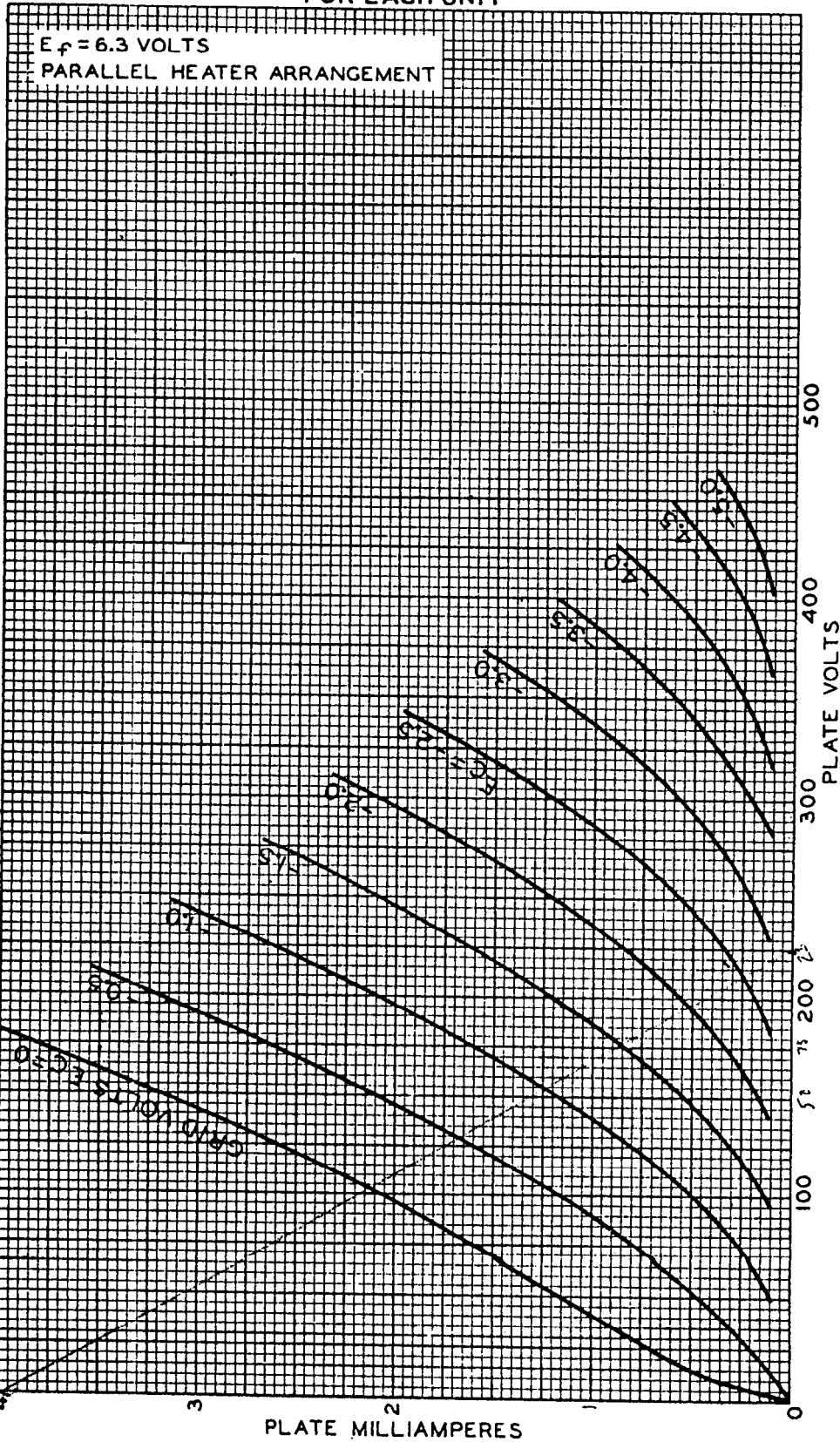




12AX7

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AVERAGE PLATE CHARACTERISTICS FOR EACH UNIT



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JULY 30, 1947

TUBE DEPARTMENT
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

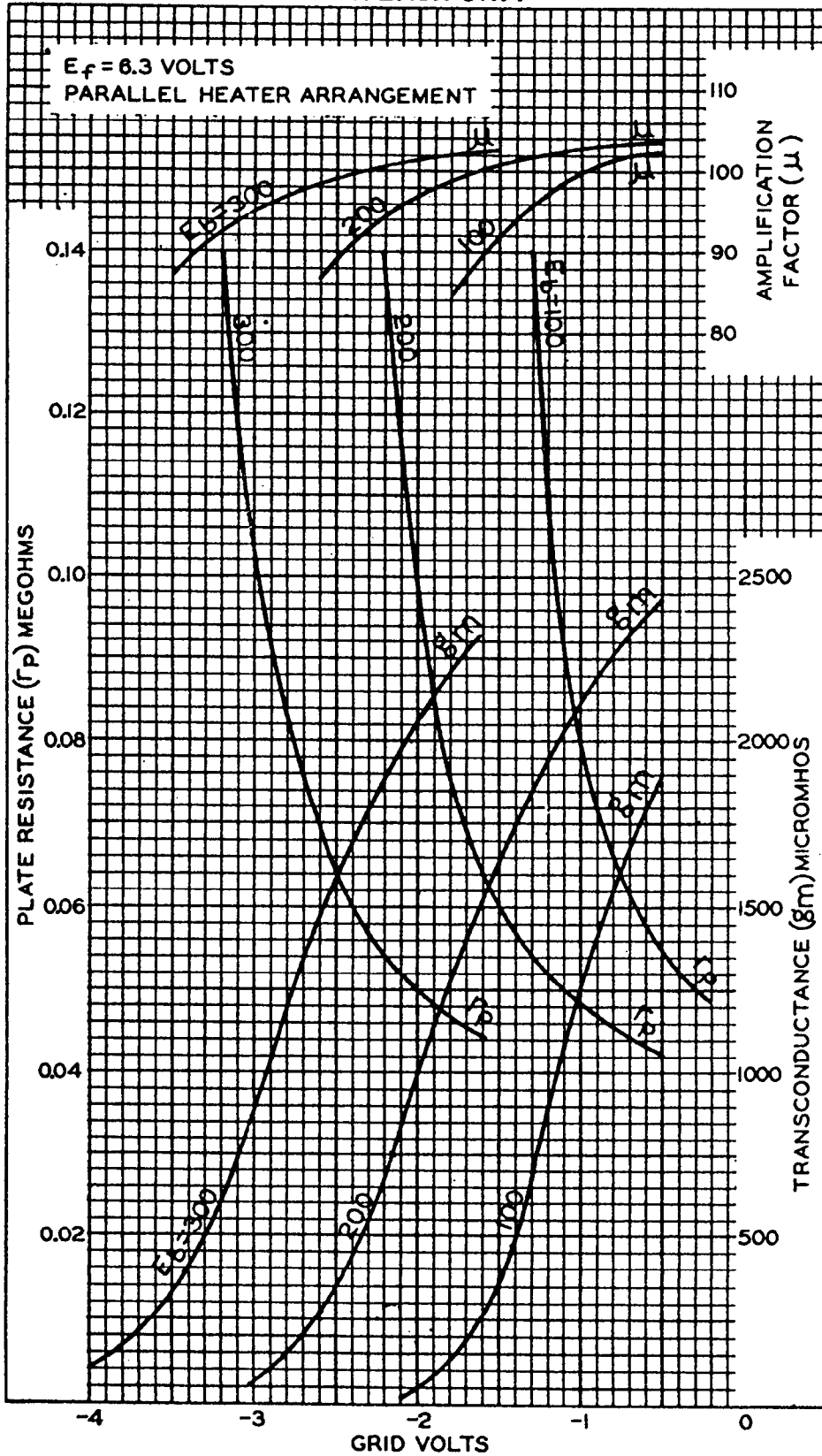
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12AX7



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AVERAGE CHARACTERISTICS
FOR EACH UNIT



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