



7025

7025

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:

Heater arrangement	Series	Parallel	
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.



7025

HIGH-MU TWIN TRIODE

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

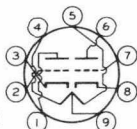
Pin 1-Plate of
 Unit No.2

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.

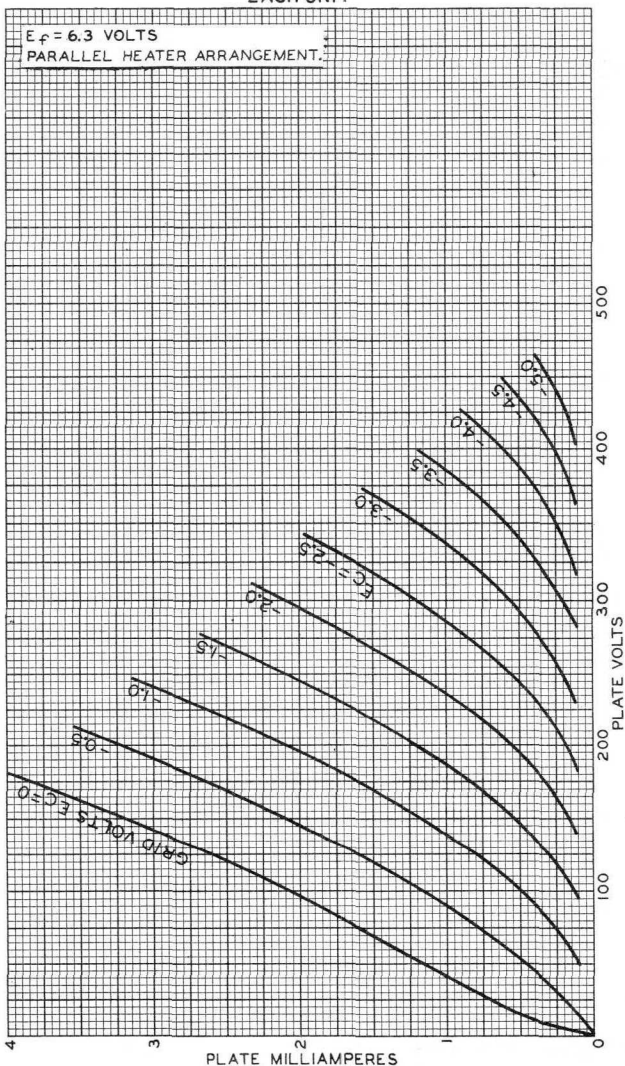
OPERATING CONSIDERATIONS

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.



7025

7025

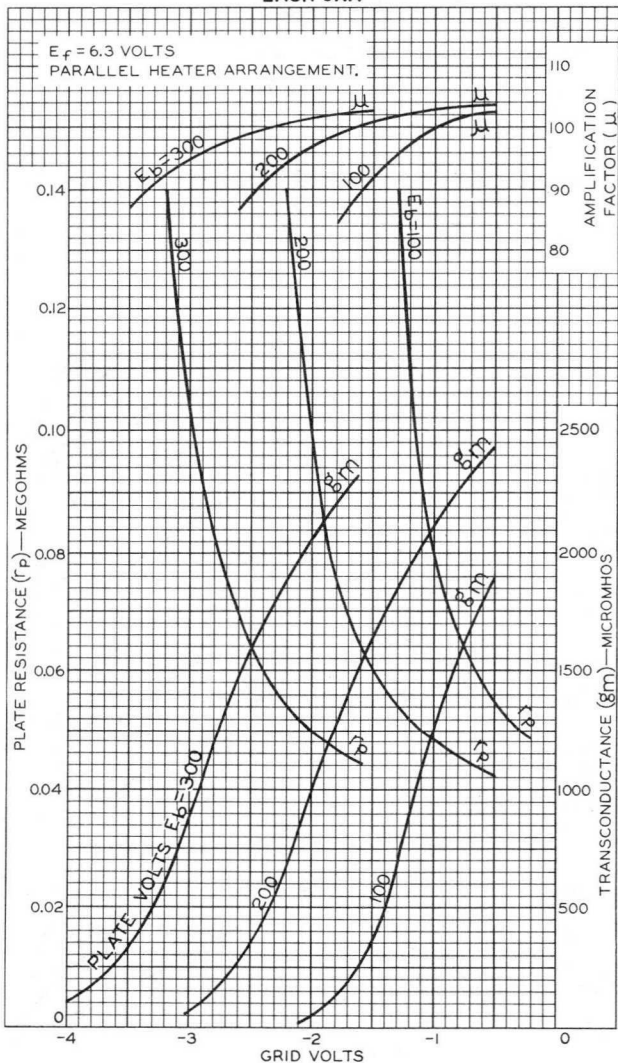
AVERAGE PLATE CHARACTERISTICS
EACH UNIT

7025



7025

AVERAGE CHARACTERISTICS EACH UNIT



ELECTRON TUBE DIVISION

RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

92CM-6880