



12AY7

MEDIUM-MU TWIN TRIODE

MINIATURE TYPE

12AY7

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 (Without External Shield)—Each Unit:

Grid to Plate	1.3	$\mu\mu\text{f}$
Input	1.3	$\mu\mu\text{f}$
Output	0.6	$\mu\mu\text{f}$

Characteristics, Class A₁ Amplifier (Each Unit):

Plate Voltage	250	volts
Grid Voltage	-4	volts
Amplification Factor	40	
Plate Resistance (Approx.)	22800	ohms
Transconductance	1750	μmhos
Plate Current	3	ma
Grid Voltage (Approx.) for plate current of 10 μamp	-11	volts

Mechanical:

Mounting 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"
Maximum Diameter	7/8"
Bulb	T-6-1/2
Base	Small-Button Noval 9-Pin (JETEC No. E9-1)
Basing Designation for BOTTOM VIEW	9A

Pin 1 - Plate of Unit No.2		Pin 6 - Plate of Unit No.1
Pin 2 - Grid of Unit No.2		Pin 7 - Grid of Unit No.1
Pin 3 - Cathode of Unit No.2		Pin 8 - Cathode of Unit No.1
Pin 4 - Heater		Pin 9 - Heater
Pin 5 - Heater		Mid-Tap

* use of the 12.6-volt connection with an ac-heater supply is not recommended for applications involving low hum.

(continued on next page)

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AMPLIFIER-Class A₁

Values are for each unit

Maximum Ratings, Design-Center Values:

PLATE VOLTAGE	300 max.	volts
GRID VOLTAGE:		
Negative bias value	50 max.	volts
Positive bias value	0 max.	volts
PLATE DISSIPATION	1.5 max.	watts
CATHODE CURRENT	10 max.	ma
PEAK HEATER-CATHODE VOLTAGE:		
Heater negative with respect to cathode	90 max.	volts
Heater positive with respect to cathode	90 max.	volts

Typical Operation as Resistance-Coupled Amplifier:

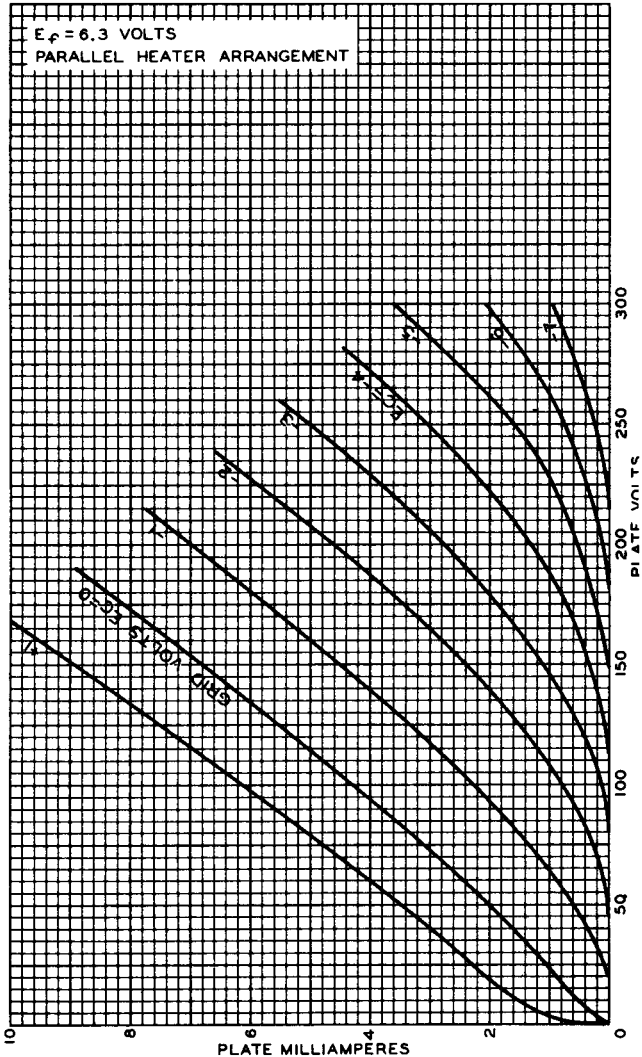
*See RESISTANCE-COUPLED AMPLIFIER CHART No.28
at front of Receiving Tube Section*



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AVERAGE PLATE CHARACTERISTICS EACH UNIT

$E_f = 6.3$ VOLTS
PARALLEL HEATER ARRANGEMENT



NOV. 5, 1952

TUBE DEPARTMENT
RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

92CM-7861

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