



2A3

# 2A3 POWER TRIODE

## GENERAL DATA

### Electrical:

Filament, Coated:

Voltage . . . . .	2.5	ac or dc volts
Current . . . . .	2.5	amp

Direct Interelectrode Capacitances (Approx.):\*

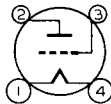
Grid to Plate . . . . .	16.5	$\mu\mu\text{f}$
Grid to Cathode . . . . .	7.5	$\mu\mu\text{f}$
Plate to Cathode . . . . .	5.5	$\mu\mu\text{f}$

\* With no external shield.

### Mechanical:

Mounting Position . . . . .	Any	←
Maximum Overall Length . . . . .	5-3/8"	
Maximum Seated Length . . . . .	4-3/4"	
Maximum Diameter . . . . .	2-1/16"	
Bulb . . . . .	ST-16	
Base . . . . .	Medium-Shell Small 4-Pin	
Basing Designation for BOTTOM VIEW . . . . .	4D	

Pin 1 - Filament  
Pin 2 - Plate



Pin 3 - Grid  
Pin 4 - Filament

## AMPLIFIER - Class A<sub>1</sub>

### Maximum Ratings, Design-Center Values:

PLATE VOLTAGE . . . . .	300 max.	volts
PLATE DISSIPATION . . . . .	15 max.	watts

### Typical Operation and Characteristics:

Plate Voltage . . . . .	250	volts
Grid Voltage* $\blacktriangle$ . . . . .	-45	volts
Amplification Factor . . . . .	4.2	
Plate Resistance . . . . .	800	ohms
Transconductance . . . . .	5250	$\mu\text{mhos}$
Plate Current . . . . .	60	ma.
Load Resistance . . . . .	2500	ohms
Second Harmonic Distortion . . . . .	5	%
Power Output . . . . .	3.5	watts

### Maximum Circuit Values:<sup>□</sup>

Grid-Circuit Resistance . . . . .	{	fixed bias	0.05 max.	megohm
		cathode bias	0.5 max.	megohm

\*  $\blacktriangle$ ,  $\square$ : See next page.

← Indicates a change.

2A3



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## POWER TRIODE

PUSH-PULL AMPLIFIER - Class AB<sub>1</sub>

## Maximum Ratings, Design-Center Values:

PLATE VOLTAGE. . . . .	300 max.	volts
PLATE DISSIPATION. . . . .	15 max.	watts

## Typical Operation:

Values are for 2 tubes

Fixed	Cathode
Bias	Bias

Plate Voltage. . . . .	300	300	•	volts
Grid Voltage* . . . . .	-62	-		volts
Cathode-Bias Resistor. . . . .	-	780		ohms
→ Peak AF Grid-to-Grid Voltage . . . . .	124	156		volts
→ Zero-Signal Plate Current. . . . .	80	80		ma.
→ Max.-Signal Plate Current. . . . .	147	100		ma.
Effective Load Resistance (plate to plate) . . . . .	3000	5000		ohms
Total Harmonic Distortion. . . . .	2.5	5.0		%
Power Output . . . . .	15	10		watts

## Maximum Circuit Values: □

Grid-Circuit Resistance. . . . .	{ fixed bias	0.05 max.	megohm
	{ cathode bias	0.5 max.	megohm

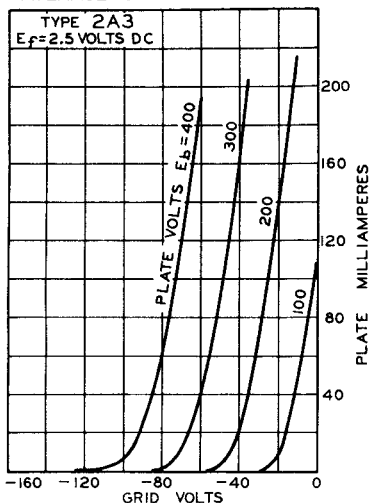
\* Grid voltage referred to mid-point of ac-operated filament.

▲ When a single 2A3 is operated cathode-biased, the cathode-biasing resistor value should be 750 ohms.

□ The type of coupling used should not introduce too much resistance in the grid circuit. Transformer or impedance-coupling devices are recommended.

• For zero-signal conditions.

## AVERAGE CHARACTERISTICS



92CM-5328T

→ Indicates a change.

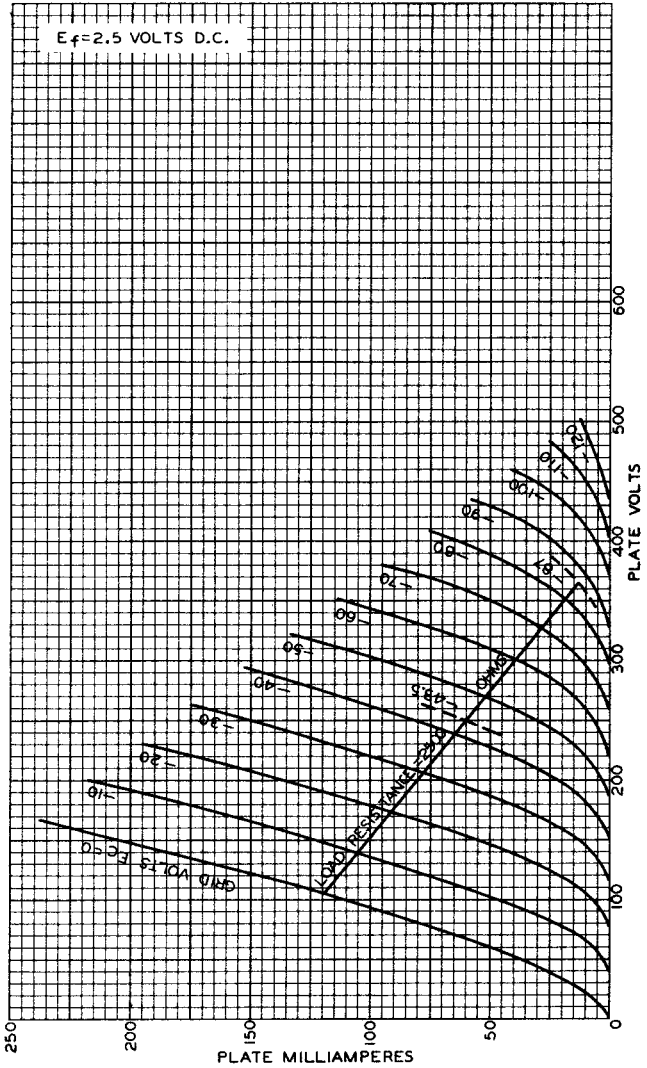
OCTOBER 15, 1947

TUBE DEPARTMENT

DATA

RADIO CORPORATION OF AMERICA, HARRISON, NEW JERSEY

AVERAGE PLATE CHARACTERISTICS

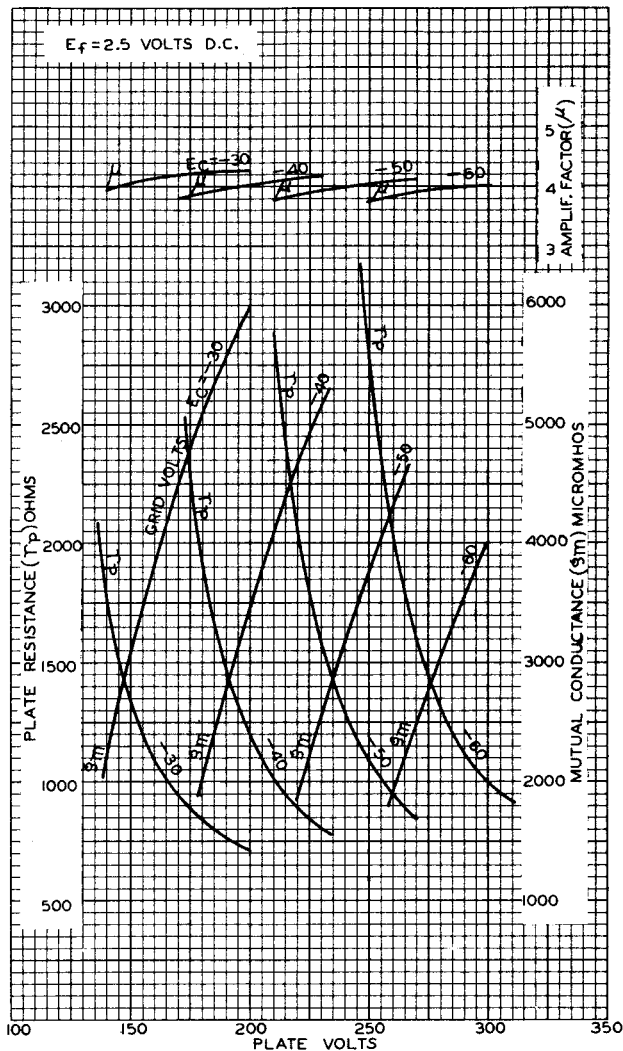


2A3


**Cunningham**  
**Radiotron**


RCA-2A3

## AVERAGE CHARACTERISTICS



JUNE 12, 1933

RCA RADIOTRON DIVISION  
RCA MANUFACTURING COMPANY, INC.

925-5326RI