



2A3

# 2A3 POWER TRIODE

## GENERAL DATA

### Electrical:

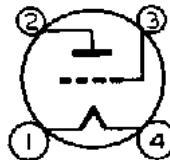
Filament, Coated:		
Voltage. . . . .	2.5 . . . . .	ac or dc volts
Current. . . . .	2.5 . . . . .	amp
Direct Interelectrode Capacitances (Approx.):*		
Grid to Plate. . . . .	16.5 . . . . .	$\mu$ f
Grid to Cathode. . . . .	7.5 . . . . .	$\mu$ f
Plate to Cathode . . . . .	5.5 . . . . .	$\mu$ f

\* 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# ▲. . . . .	-45 . . . . .	volts
Amplification Factor . . . . .	4.2 . . . . .	
Plate Resistance . . . . .	800 . . . . .	ohms
Transconductance . . . . .	5250 . . . . .	$\mu$ hos
Plate Current. . . . .	60 . . . . .	ma.
Load Resistance . . . . .	2500 . . . . .	ohms
Second Harmonic Distortion . . . . .	5 . . . . .	%
Power Output . . . . .	3.5 . . . . .	watts

### Maximum Circuit Values:◻

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

#, ▲, ◻: See next page.  
◻ indicates a change.

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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*

	<u>Fixed Bias</u>	<u>Cathode Bias</u>	
Plate Voltage. . . . .	300	300 <sup>•</sup>	volts
Grid Voltage <sup>#</sup> . . . . .	-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:<sup>□</sup>**

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

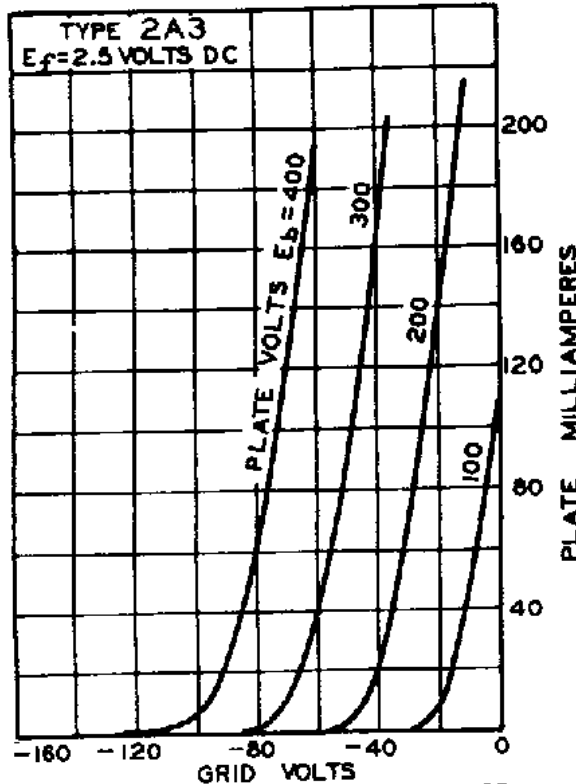
<sup>#</sup> Grid voltage referred to mid-point of ac-operated filament.

<sup>•</sup> When a single 2A3 is operated cathode-biased, the cathode-biasing resistor value should be 750 ohms.

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

<sup>•</sup> For zero-signal conditions.

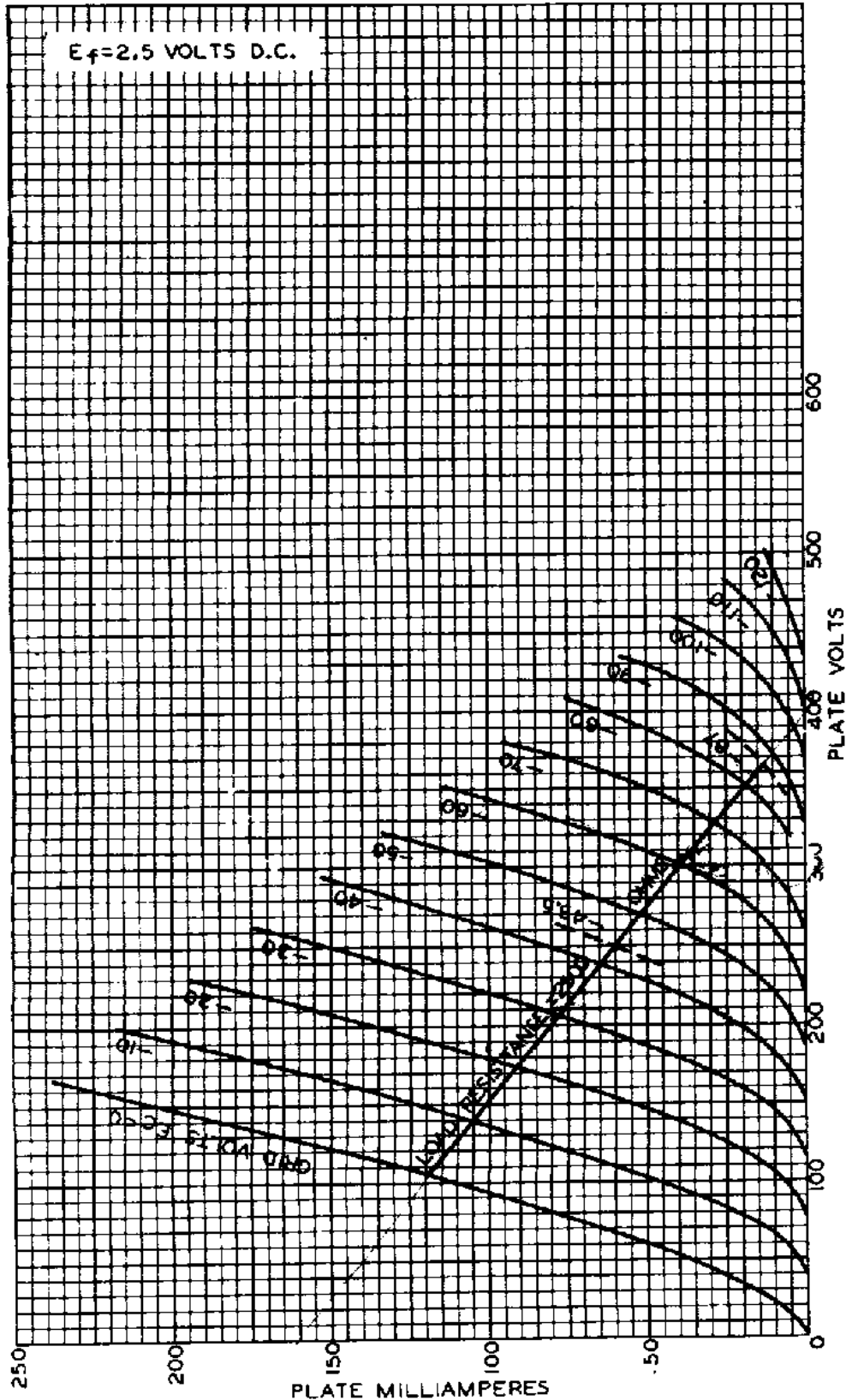
**AVERAGE CHARACTERISTICS**



→ Indicates a change.

92CM-53281

### AVERAGE PLATE CHARACTERISTICS



2A3

# Cunningham Radiotron

RCA-2A3

## AVERAGE CHARACTERISTICS

