203-A
R-F POWER AMPLIFIER, OSCILLATOR, CLASS B MODULATOR

Filament	Thoriated Tungsten	
Voltage	10	a-c or d-c volts
Current	3.25	amp.
Amplification Factor	25	
Direct Interelectrode Capacitances (approx.):		
Grid to Plate	14.5	μμf
Grid to Filament	6.5	μμf
Plate to Filament	5.5	μμf
Maximum Overall Length		7-7/8"
Maximum Diameter		2-5/16"
Bulb		T-18
Base		Jumbo 4-Large Pin

MAXIMUM RATINGS and TYPICAL OPERATING CONDITIONS

A-F POWER AMPLIFIER & MODULATOR – Class B

D-C Plate Voltage	1250 max.	volts
Max-Signal D-C Plate Current*	175 max.	ma.
Max-Signal Plate Input*	220 max.	watts
Plate Dissipation*	100 max.	watts

Typical Operation – 2 tubes:

Unless otherwise specified, values are for 2 tubes.

Filament Voltage	10	10	a-c volts
D-C Plate Voltage	1000	1250	volts
D-C Grid Voltage	-35	-45	volts
Peak A-F Grid-to-Grid Voltage	310	330	volts
Zero-Signal D-C Plate Current	26	26	ma.
Max-Signal D-C Plate Current	320	320	ma.
Load Resistance (per tube)	1725	2250	ohms
Effective Load Res. (plate to plate)	6900	9000	ohms ←
Max-Signal Driving Power	10	11	approx. watts
Max-Signal Power Output	200	260	approx. watts

* Averaged over any audio frequency cycle of sine-wave form. ←

R-F POWER AMPLIFIER – Class B Telephony

Carrier conditions per tube for use with a max. modulation fact. of 1.0

D-C Plate Voltage	1250 max.	volts
D-C Plate Current	150 max.	ma.
R-F Grid Current	6 max.	amp.
Plate Input	150 max.	watts
Plate Dissipation	100 max.	watts

Typical Operation:

Filament Voltage	10	10	a-c volts
D-C Plate Voltage	1000	1250	volts
D-C Grid Voltage	-35	-45	volts
Peak R-F Grid Voltage	95	90	volts
D-C Plate Current	130	106	ma.
D-C Grid Current**	5	3	approx. ma.
Driving Power** °	5	3	approx. watts
Power Output	40	42.5	approx. watts

** Subject to wide variations as explained on sheet TRANS. TUBE RATINGS
° At crest of a-f cycle with Modulation Factor of 1.0.
← Indicates a change

APRIL 5, 1937 DATA

RCA RADIOTRON DIVISION
RCA MANUFACTURING COMPANY, INC.

203-A

R-F POWER AMPLIFIER, OSCILLATOR, CLASS B MODULATOR

(continued from preceding page)

PLATE-MODULATED R-F POWER AMPLIFIER - Class C Telephony

Carrier conditions per tube for use with a max. modulation fact. of 1.0

D-C Plate Voltage	1000	max.	volts
→ D-C Grid Voltage	-400	max.	volts
D-C Plate Current	175	max.	ma.
D-C Grid Current	60	max.	ma.
R-F Grid Current	6	max.	amp.
Plate Input	175	max.	watts
Plate Dissipation	67	max.	watts

Typical Operation:

Filament Voltage	10	10	a-c volts
D-C Plate Voltage	750	1000	volts
D-C Grid Voltage	-100	-135	volts
Peak R-F Grid Voltage	235	275	volts
D-C Plate Current	150	150	ma.
D-C Grid Current **	50	50	approx. ma.
Driving Power **	12	14	approx. watts
Power Output	65	100	approx. watts

R-F POWER AMPLIFIER & OSCILLATOR - Class C Telegraphy

Key-down conditions per tube without modulation #

D-C Plate Voltage	1250	max.	volts
→ D-C Grid Voltage	-400	max.	volts
D-C Plate Current	175	max.	ma.
D-C Grid Current	60	max.	ma.
R-F Grid Current	7.5	max.	amp.
Plate Input	220	max.	watts
Plate Dissipation	100	max.	watts

Typical Operation:

Filament Voltage	10	10	10	a-c volts
D-C Plate Voltage	750	1000	1250	volts
D-C Grid Voltage	-75	-100	-125	volts
Peak R-F Grid Voltage	195	225	255	volts
D-C Plate Current	150	150	150	ma.
D-C Grid Current **	25	25	25	approx. ma.
Driving Power **	5	6	7	approx. watts
Power Output	65	100	130	approx. watts

\# Modulation essentially negative may be used if the positive peak of the audio-frequency envelope does not exceed 115% of the carrier conditions.

** Subject to wide variations as explained on sheet TRANS. TUBE RATINGS.

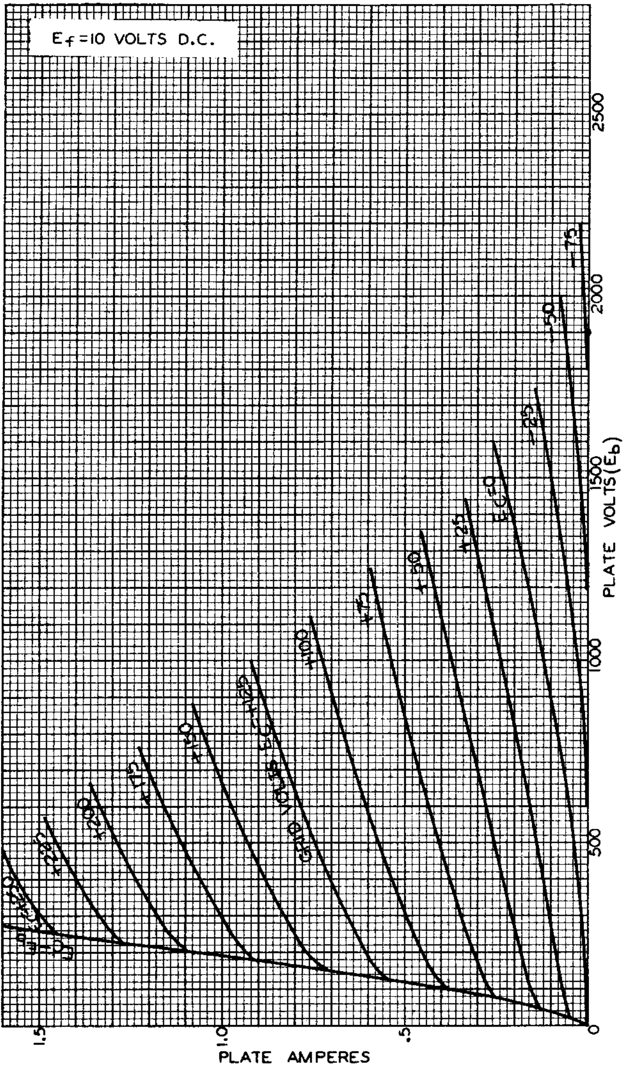
For use of the 203-A at the higher frequencies, refer to sheet TRANS. TUBE RATINGS vs FREQUENCY.

OUTLINE DIMENSIONS, TUBE SYMBOL, and SOCKET CONNECTIONS for the 203-A are the same as for the 211

← Indicates a change

203-A

AVERAGE PLATE CHARACTERISTICS



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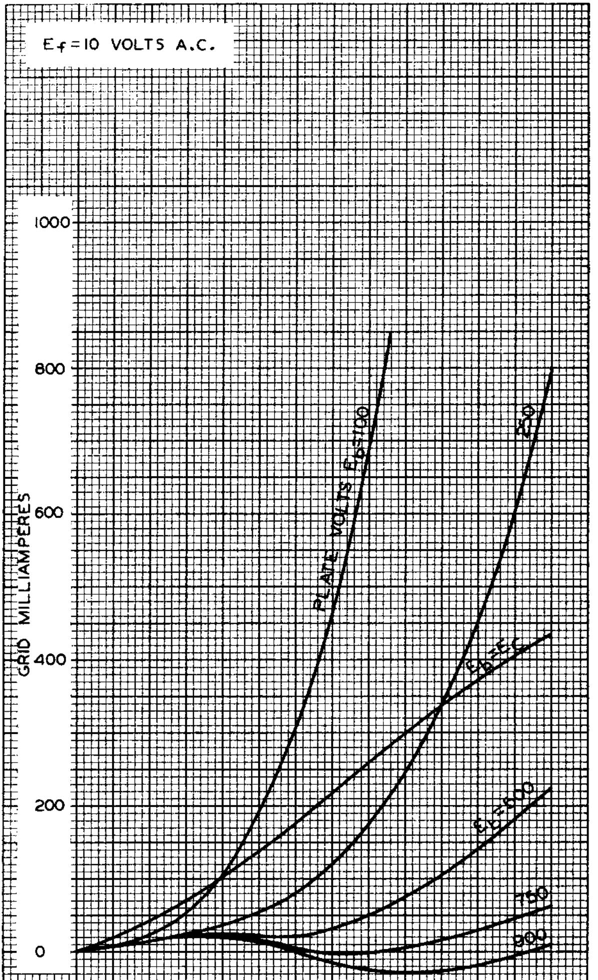
203-A

AVERAGE CHARACTERISTICS



JUNE 22, 1934

RCA RADIOTRON DIVISION
RCA MANUFACTURING COMPANY, INC.

92S—5535