1608
R-F POWER AMPLIFIER, OSCILLATOR, CLASS B MODULATOR

Filament	Coated	
Voltage	2.5	a-c or d-c volts
Current	2.5	amp.
Amplification Factor	20	
Direct Interelectrode Capacitances:		
Grid to Plate	9	μμf
Grid to Filament	8.5	μμf
Plate to Filament	3	μμf
Maximum Overall Length		5-3/8" ←
Maximum Diameter		2-1/16" ←
Bulb		ST-16
Base		Medium 4-Pin Ceramic, Bayonet
RCA Socket		Type UR-542-A ←

MAXIMUM RATINGS and TYPICAL OPERATING CONDITIONS

A-F POWER AMPLIFIER & MODULATOR - Class B

D-C Plate Voltage	425 max.	volts
Max.-Signal D-C Plate Current *	95 max.	ma.
Max.-Signal Plate Input *	40 max.	watts
Plate Dissipation *	20 max.	watts
Typical Operation:		
Unless otherwise specified, values are for 2 tubes		
D-C Plate Voltage	350	425 volts
D-C Grid Voltage	-10	-15 volts
Peak A-F Grid-to-Grid Voltage	120	190 volts ←
Zero-Signal D-C Plate Cur.	30	36 ma.
Max.-Signal D-C Plate Cur.	190	190 ma.
Load Resistance (per tube)	950	1200 ohms
Effective Load Res. (plate to plate)	3800	4800 ohms
Max.-Signal Driving Power	2.2	2.2 approx.watts
Max.-Signal Power Output	38	50 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	425 max.	volts
D-C Plate Current	70 max.	ma.
Plate Input	30 max.	watts
Plate Dissipation	20 max.	Watts
Typical Operation:		
D-C Plate Voltage	350	425 volts
D-C Grid Voltage	-10	-15 volts
Peak R-F Grid Voltage	35	40 volts
D-C Plate Current	70	70 ma.
D-C Grid Current **	4	4 approx.ma.
Driving Power ** o	2	2 approx.watts
Power Output	7	10 approx.watts

** See next page.
o At crest of a-f cycle with modulation factor of 1.0.
← Indicates a change.

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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		350 max.	volts
D-C Grid Voltage		-200 max.	volts
D-C Plate Current		85 max.	ma.
D-C Grid Current		25 max.	ma.
Plate Input		30 max.	watts
Plate Dissipation		13.5 max.	watts
Typical Operation:			
D-C Plate Voltage	325	350	volts
→ D-C Grid Voltage ¶	4000	4000	ohms
	-80	-80	volts
Peak R-F Grid Voltage	150	165	volts
D-C Plate Current	85	85	ma.
D-C Grid Current **	20	20	approx.ma.
Driving Power **	2.7	3	approx.watts
Power Output	16	18	approx.watts

¶ Obtained by grid-leak resistor or partial self-bias methods.

R-F POWER AMPLIFIER & OSCILLATOR – Class C Telegraphy

Key-down conditions per tube without modulation #

D-C Plate Voltage		425 max.	volts
D-C Grid Voltage		-200 max.	volts
D-C Plate Current		95 max.	ma.
D-C Grid Current		25 max.	ma.
Plate Input		40 max.	watts
Plate Dissipation		20 max.	watts
Typical Operation:			
D-C Plate Voltage	350	425	volts
→ D-C Grid Voltage△	4300	4500	ohms
	-85	-90	volts
Peak R-F Grid Voltage	150	155	volts
D-C Plate Current	95	95	ma.
D-C Grid Current **	20	20	approx.ma.
Driving Power **	3	3	approx.watts
Power Output	20	27	approx.watts

△ Obtained by grid-leak resistor or other self- or fixed-bias method.

\# 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 considerable variation as explained on sheet TRANS. TUBE RATINGS.

For use of the 1608 at the higher frequencies, refer to sheet TRANS. TUBE RATINGS vs FREQUENCY.

OUTLINE DIMENSIONS, TUBE SYMBOL, and SOCKET CONNECTIONS for the 1608 are the same as for the 801.

← Indicates a change.

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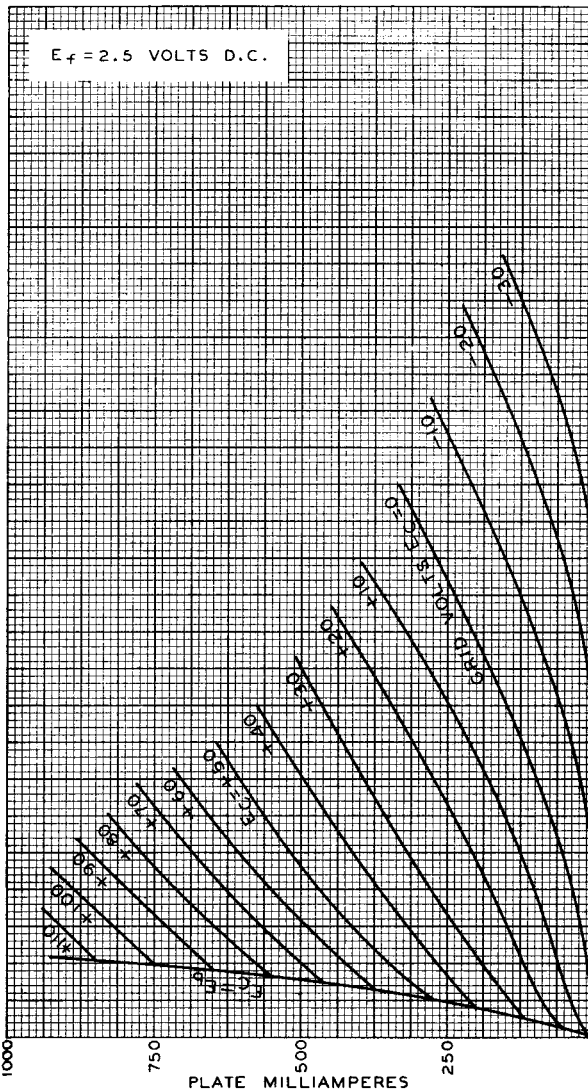
AVERAGE PLATE CHARACTERISTICS



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RCA RADIOTRON DIVISION
RCA MANUFACTURING COMPANY, INC.

92C-4729

1608

AVERAGE CHARACTERISTICS