204-A

R-F POWER AMPLIFIER, OSCILLATOR, CLASS B MODULATOR

Filament	Thoriated Tungsten	
Voltage	11	a-c or d-c volts
Current	3.85	amp.
Amplification Factor	23	
Direct Interelectrode Capacitances (approx.):		
Grid to Plate	15	μμf
Grid to Filament	12.5	μμf
Plate to Filament	2.3	μμf
Overall Length		14-1/4" ± 1/8"
Maximum Diameter		4-1/16"
Bulb		T-32
Cap		No.1904
Base		No.3502

MAXIMUM RATINGS and TYPICAL OPERATING CONDITIONS

A-F POWER AMPLIFIER & MODULATOR - Class B

D-C Plate Voltage	3000 max.	volts
Max.-Signal D-C Plate Current*	275 max.	ma.
Max.-Signal Plate Input*	600 max.	watts
Plate Dissipation*	250 max.	watts

Typical Operation - 2 tubes:

Unless otherwise specified, values are for 2 tubes.

Filament Voltage	11	11	11	a-c volts
D-C Plate Voltage	2000	2500	3000	volts
D-C Grid Voltage	-60	-80	-100	volts
Peak A-F Grid-to-Grid Volt.	500	500	500	volts
Zero-Sig. D-C Plate Cur.	80	80	80	ma.
Max.-Sig. D-C Plate Cur.	500	420	372	ma.
Load Resistance (per tube)	2200	3400	5000	ohms
Effective Load Resistance (plate to plate)	8800	13600	20000	ohms
Max.-Signal Driving Power	20	18	18	approx.watts
Max.-Signal Power Output	600	650	700	approx.watts

* Averaged over any audio-frequency cycle.

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	2500 max.	volts
D-C Plate Current	225 max.	ma.
R-F Grid Current	8 max.	amp.
Plate Input	400 max.	watts
Plate Dissipation	250 max.	watts

Typical Operation:

Filament Voltage	11	11	a-c volts
D-C Plate Voltage	1500	2000	volts
D-C Grid Voltage	-50	-70	volts
Peak R-F Grid Voltage	170	165	volts
D-C Plate Current	200	160	ma.
Driving Power** °	18	15	approx.watts
Power Output	80	100	approx.watts

**, °: See next page.

(continued on next page)

204-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			2000 max.	volts
D-C Grid Voltage			-500 max.	volts
D-C Plate Current			275 max.	ma.
D-C Grid Current			80 max.	ma.
R-F Grid Current			8 max.	amp.
Plate Input			550 max.	watts
Plate Dissipation			167 max.	watts
Typical Operation:				
Filament Voltage	11	11	a-c	volts
D-C Plate Voltage	1500	2000		volts
D-C Grid Voltage	-200	-250		volts
Peak R-F Grid Voltage	450	500		volts
D-C Plate Current	250	250		ma.
D-C Grid Current **	35	35	approx.	ma.
Driving Power **	20	20	approx.	watts
Power Output	225	350	approx.	watts

R-F POWER AMPLIFIER & OSCILLATOR – Class C Telegraphy

Key-down conditions per tube without modulation ##

D-C Plate Voltage			2500 max.		volts
D-C Grid Voltage			-500 max.		volts
D-C Plate Current			275 max.		ma.
D-C Grid Current			80 max.		ma.
R-F Grid Current			10 max.		amp.
Plate Input			690 max.		watts
Plate Dissipation			250 max.		watts
Typical Operation:					
Filament Voltage	11	11	11	a-c	volts
D-C Plate Voltage	1500	2000	2500		volts
D-C Grid Voltage	-150	-175	-200		volts
Peak R-F Grid Voltage	400	425	440		volts
D-C Plate Current	250	250	250		ma.
D-C Grid Current **	30	30	30	approx.	ma.
Driving Power **	15	15	15	approx.	watts
Power Output	240	350	450	approx.	watts

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

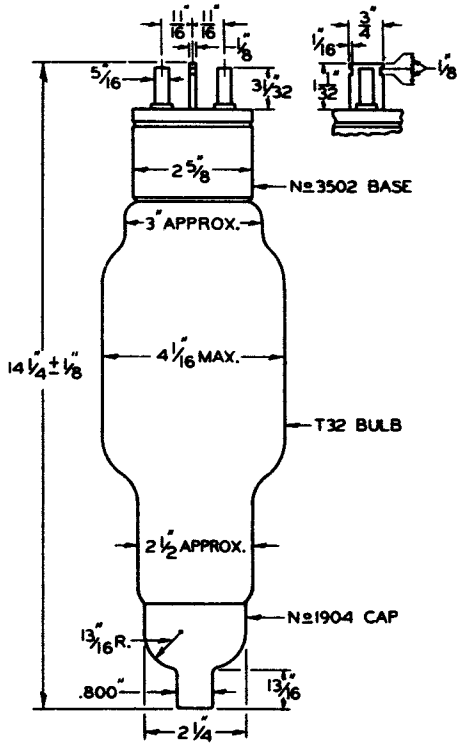
Modulation essentially negative may be used if the positive peak of the audio-frequency envelope does not exceed 115% of the carrier conditions.

° At crest of audio-frequency cycle with modulation factor of 1.0.

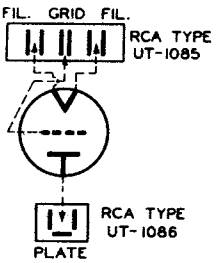
For use of the 204-A at the higher frequencies, refer to sheet TRANS. TUBE RATINGS vs FREQUENCY.

RCA RADIOTRON DIVISION
RCA MANUFACTURING COMPANY, INC.

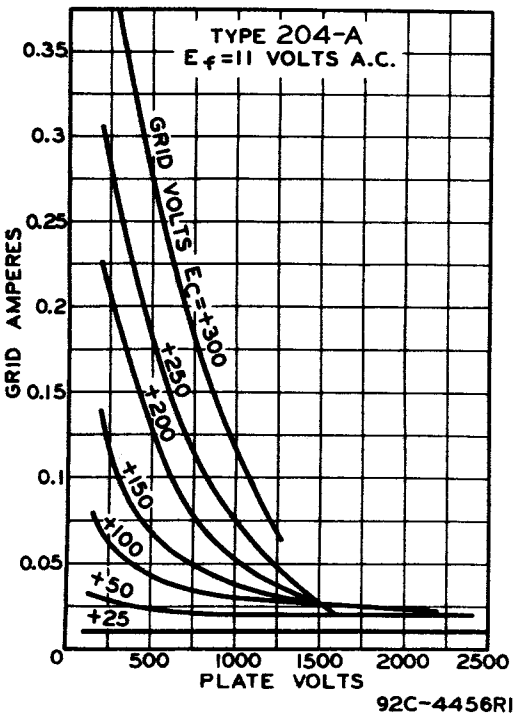
204-A
R-F POWER AMPLIFIER. OSCILLATOR CLASS B MODULATOR



TUBE SYMBOL & CONNECTIONS TO END-MOUNTINGS



TYPICAL CHARACTERISTICS



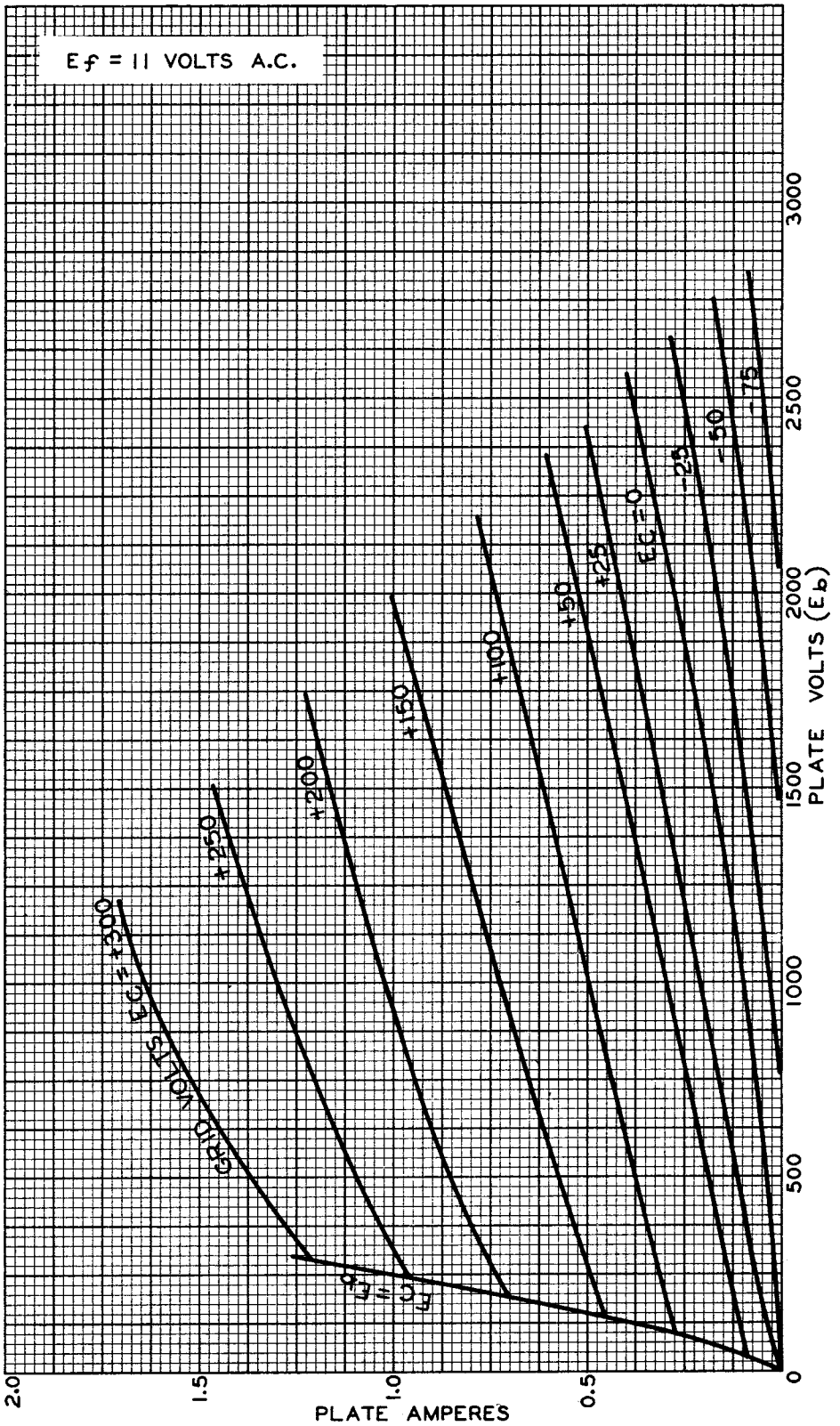
92C-4456RI

RCA RADIOTRON DIVISION
RCA MANUFACTURING COMPANY, INC.

204-A

204-A

AVERAGE PLATE CHARACTERISTICS



JUNE 3, 1935

RCA RADIOTRON DIVISION
RCA MANUFACTURING COMPANY, INC.

92C-4508