



805

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

Filament	Thoriated Tungsten	
Voltage	10	a-c or d-c volts
Current	3.25	amp.
Direct Interelectrode Capacitances (approx.):		
Grid to Plate	6.5	$\mu\text{f}$
Grid to Filament	8.5	$\mu\text{f}$
Plate to Filament	10.5	$\mu\text{f}$
Maximum Overall Length		8-1/2"
Maximum Diameter		2-5/16"
Bulb		T-18
Cap		Medium Metal
Base		Jumbo 4-Large Pin

### MAXIMUM RATINGS and TYPICAL OPERATING CONDITIONS

#### A-F POWER AMPLIFIER & MODULATOR - Class B

D-C Plate Voltage	1500 max.	volts
Max-Signal D-C Plate Current *	210 max.	ma.
Max-Signal Plate Input *	315 max.	watts
Plate Dissipation *	125 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	1250	1500	volts
D-C Grid Voltage	0	-16	volts
Peak A-F Grid-to-Grid Voltage	235	280	volts
Zero-Sig. D-C Plate Current	148	84	ma.
Max-Sig. D-C Plate Current	400	400	ma.
Load Resistance (per tube)	1675	2050	ohms
Effective Load Res.(plate to plate)	6700	8200	ohms
Max-Signal Driving Power	6	7	approx.watts
Max-Signal Power Output	300##	370#	approx.watts

\* Averaged over any audio-frequency cycle.

## With 4% harmonic distortion approx.

# With 3% harmonic distortion approx.

#### 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	1500 max.	volts
D-C Plate Current	150 max.	ma.
Plate Input	185 max.	watts
Plate Dissipation	125 max.	watts

Typical Operation:

Filament Voltage	10	10	a-c volts
D-C Plate Voltage	1250	1500	volts
D-C Grid Voltage	0	-10	volts
Peak R-F Grid Voltage	75	70	volts
D-C Plate Current	135	115	ma.
D-C Grid Current **	15	15	approx.ma.
Driving Power ** $\circ$	11	7.5	approx.watts
Power Output	55	57.5	approx.watts

$\circ$  At crest of a-f cycle with modulation factor of 1.0.

\*\* See next page. (continued on next page)



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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		1250 max.	volts
D-C Grid Voltage		-500 max.	volts
D-C Plate Current		175 max.	ma.
D-C Grid Current		70 max.	ma.
Plate Input		220 max.	watts
Plate Dissipation		85 max.	watts
Typical Operation:			
Filament Voltage	10	10	a-c volts
D-C Plate Voltage	1000	1250	volts
D-C Grid Voltage	-155	-160	volts
Peak R-F Grid Voltage	295	300	volts
D-C Plate Current	160	160	ma.
D-C Grid Current **	60	60	approx.ma.
Driving Power **	16	16	approx.watts
Power Output	110	140	approx.watts

### R-F POWER AMPLIFIER & OSCILLATOR - Class C Telegraphy

*Key-down conditions per tube without modulation \*\**

D-C Plate Voltage		1500 max.	volts
D-C Grid Voltage		-500 max.	volts
D-C Plate Current		210 max.	ma.
D-C Grid Current		70 max.	ma.
Plate Input		315 max.	watts
Plate Dissipation		125 max.	watts
Typical Operation:			
Filament Voltage	10	10	10 a-c volts
D-C Plate Voltage	1000	1250	1500 volts
D-C Grid Voltage	-95	-100	-105 volts
Peak R-F Grid Voltage	225	230	235 volts
D-C Plate Current	200	200	200 ma.
D-C Grid Current **	40	40	40 approx.ma.
Driving Power **	8.5	8.5	8.5 approx.watts
Power Output	130	170	215 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.

For use of the 805 at the higher frequencies, refer to sheet TRANS. TUBE RATINGS vs FREQUENCY.

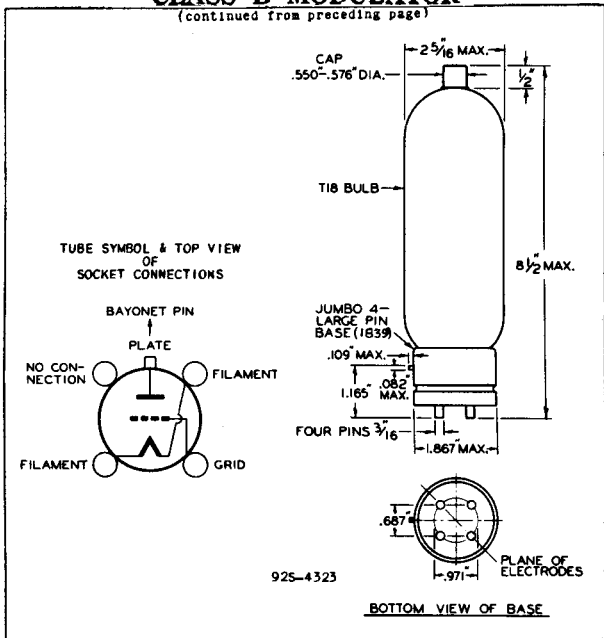


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# R-F POWER AMPLIFIER. OSCILLATOR. CLASS B MODULATOR

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FOR PLATE FAMILY, REFER TO CURVE  
92C-4404 UNDER TYPE 838.

← Indicates a change

APRIL 5, 1937

RCA RADIOTRON DIVISION  
RCA MANUFACTURING COMPANY, INC.

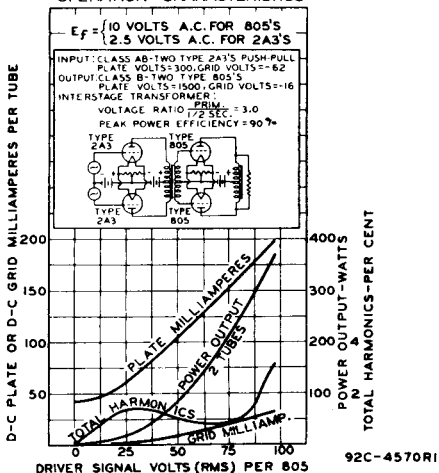
DATA 2



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# R-F POWER AMPLIFIER, OSCILLATOR CLASS B MODULATOR

## OPERATION CHARACTERISTICS



## DYNAMIC TRANSFER CHARACTERISTICS

