



843

843

## R-F POWER AMPLIFIER, OSCILLATOR, A-F POWER AMPLIFIER

Heater	Coated Unipotential Cathode*	
Voltage	2.5	a-c or d-c volts
Current	2.5	amp.
Amplification Factor	7.7	
Direct Interelectrode Capacitances:		
Grid to Plate	4.5	$\mu\text{pf}$
Grid to Cathode	4	$\mu\text{pf}$
Plate to Cathode	4	$\mu\text{pf}$
Maximum Overall Length		5-5/8"
Maximum Diameter		2-3/16"
Bulb		S-17
Base		Medium 5-Pin

### A-F POWER AMPLIFIER - Class A

D-C Plate Voltage		425 max.	volts
Plate Dissipation		12 max.	watts
Typical Operation:			
D-C Plate Voltage	350	425	volts
D-C Grid Voltage	-25	-35	volts
A-F Grid Voltage	25	35	volts
D-C Plate Current	25	25	ma.
Transconductance	1600	1600	$\mu\text{mhos}$
Plate Resistance	4800	4800	ohms
Load Resistance	9500	12000	ohms
U.P.O. (5% second harmonic)	0.95	1.6	watts

The d-c resistance in the grid circuit should not exceed 0.5 megohm with cathode bias, or 0.1 megohm without cathode bias.

### R-F POWER AMPLIFIER - Class B Telephony

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

D-C Plate Voltage		450 max.	volts
D-C Plate Current		30 max.	ma.
Plate Dissipation		15 max.	watts
Typical Operation:			
D-C Plate Voltage	350	450	volts
Grid Voltage	-40	-55	volts
D-C Plate Current	25	25	ma.
Power Output	2	3	approx. watts

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

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

D-C Plate Voltage		350 max.	volts
D-C Grid Voltage		-200 max.	volts
D-C Plate Current		40 max.	ma.
D-C Grid Current		7.5 max.	ma.
Plate Input		14 max.	watts
Plate Dissipation		10 max.	watts
Typical Operation:			
D-C Plate Voltage	250	350	volts
Grid Voltage	-100	-150	volts
D-C Plate Current	30	30	ma.
D-C Grid Current **	7	7	approx. ma.
Driving Power **	1.3	1.6	approx. watts
Power Output	3	5	approx. watts

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

Key-down conditions per tube without modulation\*

D-C Plate Voltage		450 max.	volts
D-C Grid Voltage		-200 max.	volts
D-C Plate Current		40 max.	ma.
D-C Grid Current		7.5 max.	ma.
Plate Input		18 max.	watts
Plate Dissipation		15 max.	watts
Typical Operation:			
D-C Plate Voltage	350	450	volts
Grid Voltage	-100	-140	volts
D-C Plate Current	30	30	ma.
D-C Grid Current **	5	5	approx. ma.
Driving Power **	0.8	1.0	approx. watts
Power Output	5	7.5	approx. watts

\* In circuits where the cathode is not directly connected to the heater, the potential difference between heater and cathode should be limited to 45 volts.

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

← Indicates a change.

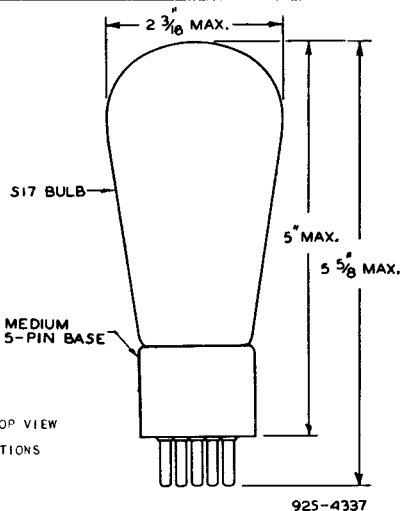
For use of the 843 at the higher frequencies, refer to sheet TRANS. TUBE RATINGS vs FREQUENCY.

843



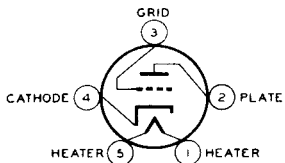
843

**R-F POWER AMPLIFIER, OSCILLATOR,  
A-F POWER AMPLIFIER**



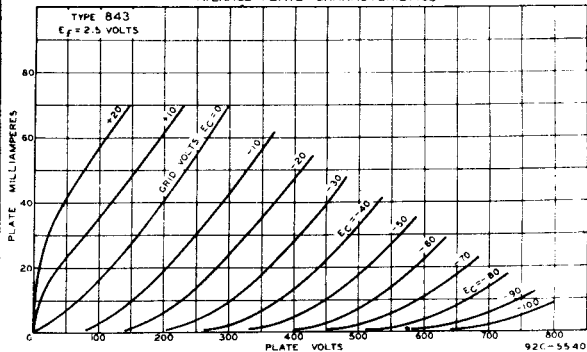
925-4337

TUBE SYMBOL & TOP VIEW OF SOCKET CONNECTIONS



TUBE MOUNTING POSITION  
VERTICAL or HORIZONTAL

AVERAGE PLATE CHARACTERISTICS



92C-5540

JULY 1, 1938

RCA RADIOTRON DIVISION  
RCA MANUFACTURING COMPANY, INC.

DATA