

RCA-841

R-F Power Amplifier, Oscillator, Class B Modulator

RCA-841 is a high- μ , three-electrode tube of the thoriated-tungsten filament type. As a radio-frequency power amplifier it may be operated under maximum rated conditions at frequencies as high as 6 megacycles. For socket and outline drawing, refer to RCA-1602.

CHARACTERISTICS

Filament Volts (a-c or d-c)	7.5	Grid-Plate Capacitance	7 μ f
Filament Amperes	1.25	Grid-Filament Capacitance	4 μ f
Amplification Factor	30	Plate-Filament Capacitance	3 μ f

MAXIMUM RATINGS

	Class B Modu- lation	Class B Tele- phony*	Class C Tele- phony*	Class C Tele- graphy§	
D-C PLATE VOLTAGE	425	450	350	450	Volts
D-C GRID VOLTAGE	—	—	-200	-200	Volts
D-C PLATE CURRENT	—	50	60	60	Milliamperes
MAX.-SIG. D-C PLATE CUR.†	60	—	—	—	Milliamperes
D-C GRID CURRENT	—	—	20	20	Milliamperes
PLATE INPUT	—	22.5	21	27	Watts
MAX.-SIG. PLATE INPUT†.....	25	—	—	—	Watts
PLATE DISSIPATION	15†	15	10	15	Watts

RCA-842

A-F Power Amplifier, Modulator

RCA-842 is a low- μ , three-electrode tube of the thoriated-tungsten filament type for use primarily as a class A power amplifier. For socket and outline drawing, refer to RCA-1602.

CHARACTERISTICS

Filament Volts (a-c or d-c)	7.5	Grid-Plate Capacitance	7 μ f
Filament Amperes	1.25	Plate-Filament Capacitance	4 μ f
Amplification Factor	3	Plate-Filament Capacitance	3 μ f

MAXIMUM RATINGS FOR CLASS A SERVICE

D-C PLATE VOLTAGE	425	Volts
PLATE DISSIPATION	12	Watts

With a plate voltage of 425 volts, a grid bias of -100 volts, and a load resistance of 8000 ohms, the 842 is capable of giving an undistorted power output of 3 watts.

RCA-843

R-F Power Amplifier, Oscillator

RCA-843 is a three-electrode tube of the heater-cathode type for use as an oscillator and r-f power amplifier. The 843 may be operated at maximum input at frequencies as high as 6 megacycles.

CHARACTERISTICS

Heater Volts (a-c or d-c)	2.5	Grid-Plate Capacitance	4.5 μ f
Heater Amperes	2.5	Grid-Cathode Capacitance	4 μ f
Amplification Factor	7.7	Plate-Cathode Capacitance	4 μ f
Maximum Overall Length	5 $\frac{5}{8}$ "	Bulb	S-17
Maximum Diameter	2 $\frac{1}{8}$ "	Base	Medium 5-Pin

†, *, §: see next page.

MAXIMUM RATINGS

	Class B Tele- phony*	Class C Tele- phony*	Class C Tele- graphy§	
D-C PLATE VOLTAGE	450	350	450	Volts
D-C GRID VOLTAGE	—	-200	-200	Volts
D-C PLATE CURRENT	30	40	40	Milliamperes
D-C GRID CURRENT	—	7.5	7.5	Milliamperes
PLATE INPUT	—	14	18	Watts
PLATE DISSIPATION	15	10	15	Watts

RCA-844

Screen-Grid R-F Power Amplifier

RCA-844 is a screen-grid transmitting tube of the heater-cathode type for use as a radio-frequency amplifier and multiplier. The 844 may be operated at maximum rated conditions at frequencies as high as 8 megacycles.

CHARACTERISTICS

Heater Volts (a-c or d-c)	2.5	Grid-Plate Capacitance (With external shielding)	0.15 max. μf
Heater Amperes	2.5	Input Capacitance	9.5 μf
Amplification Factor	75	Output Capacitance	7.5 μf
Transconductance (For plate current of 13 ma.) Micromhos	600	Bulb	ST-16
Maximum Overall Length	5 $\frac{3}{8}$ "	Cap	Medium Metal
Maximum Diameter	2 $\frac{1}{8}$ "	Base	Medium 5-Pin

MAXIMUM RATINGS

	Class B Tele- phony*	Class C Tele- phony*	Class C Tele- graphy§	
D-C PLATE VOLTAGE	500	500	500	Volts
D-C SCREEN VOLTAGE	175	175	175	Volts
D-C GRID VOLTAGE	—	-200	-200	Volts
D-C PLATE CURRENT	25	25	30	Milliamperes
D-C GRID CURRENT	—	5	5	Milliamperes
SCREEN INPUT	3	2	3	Watts
PLATE DISSIPATION	15	10	15	Watts

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

§ Key-down conditions per tube without modulation. Modulation essentially negative may be used if the positive peak of the audio-frequency envelope does not exceed 115% of the carrier conditions.

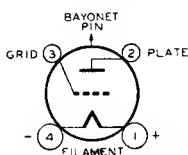
† Averaged over any audio-frequency cycle of sine-wave form.

INSTALLATION AND APPLICATION

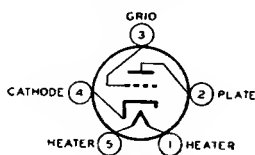
The plate of the 841, 842, 843, or 844 shows no color at the maximum plate-dissipation rating for each class of service.

For high-frequency operation of the 841, 843, and 844, see page 144.

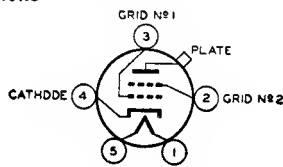
Top Views of Socket Connections



RCA-841 and 842



RCA-843



RCA-844