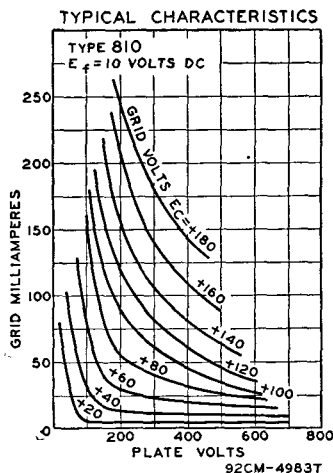




POWER TRIODE

811-A

Thoriated-tungsten-filament type used as af power amplifier and modulator and as rf power amplifier and oscillator. May be used with full input up to 30 Mc. For operation at 60 Mc,

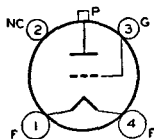


plate voltage and plate input should be reduced to 89 per cent of maximum ratings; at 80 Mc, to 70 per cent; at 100 Mc, to 55 per cent. Class C Telegraphy maximum plate dissipation, CCS 45 watts, ICAS 65 watts. Requires Small four-contact socket and may be mounted in vertical position with base down, or in horizontal position with pins 1 and 4 in vertical plane. **OUTLINE 39, Outlines Section.** Plate shows no color when tube is operated at maximum CCS ratings, and shows a barely perceptible red color at maximum ICAS ratings.

FILAMENT VOLTAGE (AC/DC)	6.3	volts
FILAMENT CURRENT	4	amperes
AMPLIFICATION FACTOR*	160	
DIRECT INTERELECTRODE CAPACITANCES:		
Grid to plate	5.6	μ f
Grid to filament	5.9	μ f
Plate to filament	0.7	μ f

* Grid volts, -1; plate milliamperes, 20.

AF POWER AMPLIFIER AND MODULATOR—Class B

Maximum Ratings:	CCS		ICAS		
DC PLATE VOLTAGE	1250	max	1500	max	volts
MAXIMUM-SIGNAL DC PLATE CURRENT [■]	175	max	175	max	ma
MAXIMUM-SIGNAL PLATE INPUT [■]	165	max	235	max	watts
PLATE DISSIPATION [■]	45	max	65	max	watts

Typical Operation (Values are for 2 tubes):

DC Plate Voltage	750	1250	1000	1250	1500	volts
DC Grid Voltage [†]	0	0	0	0	-4.5	volts
Peak AF Grid-to-Grid Voltage	197	145	185	175	170	volts
Zero-Signal DC Plate Current	32	50	44	54	32	ma
Maximum-Signal DC Plate Current	350	260	350	350	313	ma
Effective Load Resistance (Plate to plate) ..	5100	12400	7400	9200	12400	ohms
Maximum-Signal Driving Power (Approx.) ..	9.7	3.8	7.5	6	4.4	watts
Maximum-Signal Power Output (Approx.) ..	178	235	248	310	340	watts

[■] Averaged over any audio-frequency cycle of sine-wave form.

[†] For ac filament supply.

RCA Transmitting Tubes

PLATE-MODULATED RF POWER AMPLIFIER—Class C Telephony

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

Maximum Ratings:	CCS	ICAS	
DC PLATE VOLTAGE.....	1000 max	1250 max	volts
DC GRID VOLTAGE.....	-200 max	-200 max	volts
DC PLATE CURRENT.....	125 max	150 max	ma
DC GRID CURRENT.....	50 max	50 max	ma
PLATE INPUT.....	115 max	175 max	watts
PLATE DISSIPATION.....	30 max	45 max	watts

Typical Operation:

DC Plate Voltage.....	1000	1250	volts
DC Grid Voltage δ	-55	-120	volts
From grid resistor of.....	1200	2700	ohms
Peak RF Grid Voltage.....	150	250	volts
DC Plate Current.....	115	140	ma
DC Grid Current (Approx.).....	45	45	ma
Driving Power (Approx.).....	6.1	10	watts
Power Output (Approx.).....	88	135	watts

δ Obtained from grid resistor of value shown or from a combination of grid resistor with either fixed supply or cathode resistor.

RF POWER AMPLIFIER AND OSCILLATOR—Class C Telephony# and

RF POWER AMPLIFIER—Class C FM Telephony

Maximum Ratings:	CCS	ICAS	
DC PLATE VOLTAGE.....	1250 max	1500 max	volts
DC GRID VOLTAGE.....	-200 max	-200 max	volts
DC PLATE CURRENT.....	175 max	175 max	ma
DC GRID CURRENT.....	50 max	50 max	ma
PLATE INPUT.....	175 max	260 max	watts
PLATE DISSIPATION.....	45 max	65 max	watts

Typical Operation:

DC Plate Voltage.....	1250	1500	volts
DC Grid Voltage δ	-50	-70	volts
From grid resistor of.....	1100	1750	ohms
From cathode resistor of.....	270	330	ohms
Peak RF Grid Voltage.....	140	175	volts
DC Plate Current.....	140	173	ma
DC Grid Current (Approx.).....	45	40	ma
Driving Power (Approx.).....	5.7	7.1	watts
Power Output (Approx.).....	135	200	watts

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

δ Obtained from fixed supply, by grid resistor, by cathode resistor, or by combination methods.

SELF-RECTIFYING AMPLIFIER®—Class C

Maximum CCS Ratings:

RMS PLATE VOLTAGE.....	1750 max	volts
DC GRID VOLTAGE.....	-125 max	volts
DC PLATE CURRENT.....	65 max	ma
DC GRID CURRENT.....	25 max	ma
PLATE INPUT.....	125 max	watts
PLATE DISSIPATION.....	45 max	watts

Typical Push-Pull Operation at 27 Mc (Values are for 2 tubes):

RMS Plate Voltage.....	1750	volts
DC Grid Voltage δ	-70	volts
From grid resistor of.....	1500	ohms
DC Plate Current.....	130	ma
DC Grid Current (Approx.).....	46	ma
Driving Power (Approx.)•.....	12	watts
Power Output (Approx.).....	175	watts
Useful Power Output (Approx.)—75-per-cent circuit efficiency.....	130	watts

δ Obtained from grid resistor of value shown or from a combination of grid resistor with either fixed supply or cathode resistor.

• From a self-rectifying driver.

RCA Transmitting Tubes

AMPLIFIER[®] — Class C

With separate, rectified, unfiltered, single-phase, full-wave plate supply

Maximum CCS Ratings:

DC PLATE VOLTAGE.....	1125 max	volts
DC GRID VOLTAGE.....	-125 max	volts
DC PLATE CURRENT.....	160 max	ma
DC GRID CURRENT.....	45 max	ma
PLATE INPUT [▲]	175 max	watts
PLATE DISSIPATION.....	45 max	watts

Typical Operation:

DC Plate Voltage.....	1125	volts
DC Grid Voltage ϕ	-35	volts
From grid resistor of.....	1400	ohms
DC Plate Current.....	125	ma
DC Grid Current (Approx.).....	25	ma
Driving Power (Approx.) ^{▲▲}	3	watts
Power Output (Approx.).....	135	watts

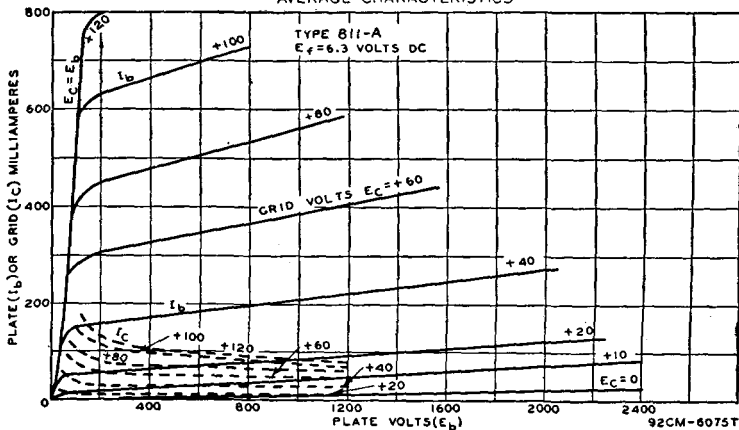
[▲] Power input is 1.23 times the product of dc plate voltage and dc plate current.

ϕ Obtained from grid resistor of value shown or from a combination of grid resistor with either fixed supply or cathode resistor.

^{▲▲} From a driver having a rectified, unfiltered, single-phase, full-wave plate supply.

[®] The 811-A is not recommended for oscillator service in applications involving wide variations of load. For such applications, the 812-A having a lower amplification factor is preferred for its ability to oscillate over a wide variation of load.

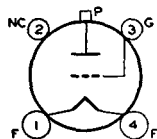
AVERAGE CHARACTERISTICS



POWER TRIODE

812-A

Thoriated-tungsten-filament type used as af power amplifier and modulator and as rf power amplifier and oscillator. May be used with full input up to 30 Mc and with reduced input



up to 100 Mc. Class C Telegraphy maximum plate dissipation, CCS 45 watts, ICAS 65 watts.

FILAMENT VOLTAGE (AC/DC).....	6.3	volts
FILAMENT CURRENT.....	4	amperes
AMPLIFICATION FACTOR [*]	29	
DIRECT INTERELECTRODE CAPACITANCES:		
Grid to plate.....	5.5	μ f
Grid to filament.....	5.4	μ f
Plate to filament.....	0.77	μ f

^{*}Grid volts, -30; plate milliamperes, 30.