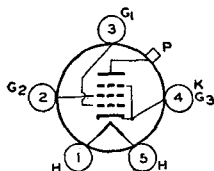


max; dc plate milliamperes, 200 *max* (ICAS, 305 *max*); dc grid milliamperes, 50 *max*; plate input, 600 *max* watts (ICAS, 1000 *max* watts); plate dissipation, 150 *max* watts (ICAS, 225 *max* watts). Plate shows cherry-red color when tube is operated at maximum CCS ratings, and orange-red color at maximum ICAS ratings. The 806 is used principally for renewal purposes.

BEAM POWER TUBE



807

Heater-cathode type used as af power amplifier and modulator and as rf power amplifier and oscillator. May be used with full input up to 60 Mc. For operation at 80 Mc, plate voltage

and plate input should be reduced to 80 per cent of maximum ratings; at 125 Mc, to 55 per cent. Class C Telephony maximum plate dissipation, CCS 25 watts, ICAS 30 watts. Requires Small five-contact socket and may be mounted in any position. OUTLINE 31, *Outlines* Section, except has no bayonet pin. Plate shows no color when tube is operated at maximum CCS or ICAS ratings.

HEATER VOLTAGE (AC/DC).....	6.3 ± 0.6	volts
HEATER CURRENT.....	0.9	ampere
TRANSCONDUCTANCE (Approx.)*.....	6000	μmhos
MU-FACTOR, Grid No.2 to Grid No.1**.....	8	
DIRECT INTERELECTRODE CAPACITANCES:		
Grid No.1 to plate (With external shielding).....	0.2 <i>max</i>	μf
Grid No.1 to cathode, grid No.3, grid No.2, and heater.....	12	μf
Plate to cathode, grid No.3, grid No.2, and heater.....	7	μf

* Plate and grid-No.2 volts, 250; grid-No.1 volts, -14.

** Plate and grid-No.2 volts, 250; grid-No.1 volts, -20.

AF POWER AMPLIFIER AND MODULATOR—Class AB₂

Maximum Ratings:	CCS	ICAS	
DC PLATE VOLTAGE.....	600 <i>max</i>	750 <i>max</i>	volts
DC GRID-NO.2 (SCREEN-GRID) VOLTAGE.....	300 <i>max</i>	300 <i>max</i>	volts
MAXIMUM-SIGNAL DC PLATE CURRENT [‡]	120 <i>max</i>	120 <i>max</i>	ma
MAXIMUM-SIGNAL PLATE INPUT [‡]	60 <i>max</i>	90 <i>max</i>	watts
MAXIMUM-SIGNAL GRID-NO.2 INPUT [‡]	3.5 <i>max</i>	3.5 <i>max</i>	watts
PLATE DISSIPATION [‡]	25 <i>max</i>	30 <i>max</i>	watts
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode.....	135 <i>max</i>	135 <i>max</i>	volts
Heater positive with respect to cathode.....	135 <i>max</i>	135 <i>max</i>	volts

Typical Operation (Values are for 2 tubes):

DC Plate Voltage.....	400	500	600	750	volts
DC Grid-No.2 Voltage [‡]	300	300	300	300	volts
DC Grid-No.1 (Control-Grid) Voltage.....	-28	-30	-32	-35	volts
Peak AF Grid-No.1-to-No.1 Voltage.....	80	86	80	96	volts
Zero-Signal DC Plate Current.....	72	60	48	30	ma
Maximum-Signal DC Plate Current.....	240	240	200	240	ma
Zero-Signal DC Grid-No.2 Current.....	2	0.9	0.7	0.5	ma
Maximum-Signal DC Grid-No.2 Current.....	20	20	18	20	ma
Effective Load Resistance (Plate to plate).....	3700	4600	6900	7300	ohms
Maximum-Signal Driving Power (Approx.).....	0.2	0.2	0.1	0.2	watt
Maximum-Signal Power Output (Approx.)*.....	55	75	80	120	watts

Maximum Circuit Values (CCS or ICAS conditions):

Grid-No.1-Circuit Resistance		
For fixed-bias operation.....	30000 <i>max</i>	ohms
For cathode-bias operation.....	Not recommended	

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

‡ Preferably obtained from a separate source, or from the plate-voltage supply with a voltage divider.

* With zero-impedance driver and perfect regulation, plate-circuit distortion does not exceed 2 per cent. In practice, regulation of plate voltage, grid-No.2 voltage, and grid-No.1 voltage should not be greater than 5 per cent, 5 per cent, and 3 per cent, respectively.

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.....	475 <i>max</i>	600 <i>max</i>	volts
DC GRID-NO.2 VOLTAGE.....	300 <i>max</i>	300 <i>max</i>	volts

RCA Transmitting Tubes

DC GRID-No.1 VOLTAGE.....	-200 max	-200 max	volts
DC PLATE CURRENT.....	83 max	100 max	ma
DC GRID-No.1 CURRENT.....	5 max	5 max	ma
PLATE INPUT.....	40 max	60 max	watts
GRID-No.2 INPUT.....	2.5 max	2.5 max	watts
PLATE DISSIPATION.....	16.5 max	25 max	watts
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode.....	135 max	135 max	volts
Heater positive with respect to cathode.....	135 max	135 max	volts

Typical Operation:

DC Plate Voltage.....	325	400	475	600	volts
DC Grid-No.2 Voltage ϕ	250	250	250	300	volts
From series resistor of.....	12500	25000	28000	37500	ohms
DC Grid-No.1 Voltage ϕ	-75	-75	-85	-85	volts
From grid-No.1 resistor of.....	21400	21400	21200	21200	ohms
Peak RF Grid-No.1 Voltage.....	95	95	108	107	volts
DC Plate Current.....	80	80	83	100	ma
DC Grid-No.2 Current.....	6	6	8	8	ma
DC Grid-No.1 Current (Approx.).....	3.5	3.5	4	4	ma
Driving Power (Approx.).....	0.3	0.3	0.4	0.4	watt
Power Output (Approx.).....	17	22	28	44	watts

Maximum Circuit Values (CCS or ICAS conditions):

Grid-No.1-Circuit Resistance.....	30000 max	ohms
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ϕ Obtained preferably from separate source modulated along with the plate supply, or from the modulated plate supply through series resistor of value shown.

ϕ Obtained from grid-No.1 resistor of value shown or from a combination of grid-No.1 resistor with either fixed supply or cathode resistor.

RF POWER AMPLIFIER AND OSCILLATOR—Class C Telephony[#]

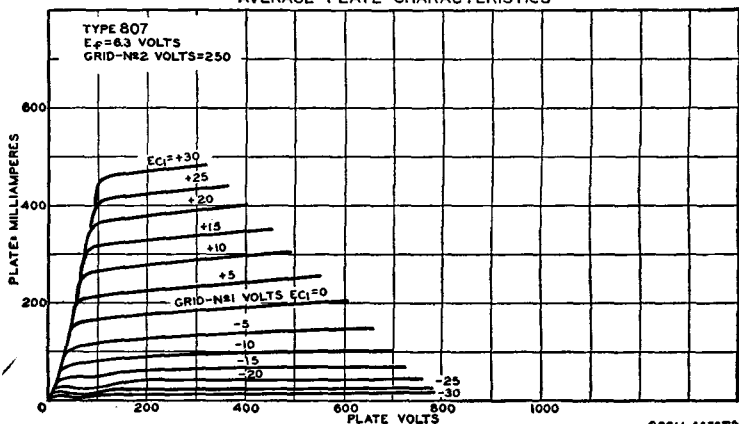
and

RF POWER AMPLIFIER—Class C FM Telephony

Maximum Ratings:

	CCS	ICAS	
DC PLATE VOLTAGE.....	600 max	750 max	volts
DC GRID-No.2 VOLTAGE.....	300 max	300 max	volts
DC GRID-No.1 VOLTAGE.....	-200 max	-200 max	volts
DC PLATE CURRENT.....	100 max	100 max	ma
DC GRID-No.1 CURRENT.....	5 max	5 max	ma
PLATE INPUT.....	60 max	75 max	watts
GRID-No.2 INPUT.....	3.5 max	3.5 max	watts
PLATE DISSIPATION.....	25 max	30 max	watts
PEAK HEATER-CATHODE VOLTAGE:			
Heater negative with respect to cathode.....	135 max	135 max	volts
Heater positive with respect to cathode.....	135 max	135 max	volts

AVERAGE PLATE CHARACTERISTICS



92CM 4676T3

Typical Operation:

DC Plate Voltage	400	500	600	750	volts
DC Grid-No.2 Voltage ^a	250	250	250	250	volts
From series resistor of	19000	31000	44000	62000	ohms
DC Grid-No.1 Voltage ^a	-45	-45	-45	-45	volts
From grid-No.1 resistor of	11200	11200	11200	11200	ohms
From cathode resistor of	400	400	400	400	ohms
Peak RF Grid-No.1 Voltage	65	65	65	65	volts
DC Plate Current	100	100	100	100	ma
DC Grid-No.2 Current	8	8	8	8	ma
DC Grid-No.1 Current (Approx.)	4	4	4	4	ma
Driving Power (Approx.)	0.3	0.3	0.3	0.3	watt
Power Output (Approx.)	25	32	40	54	watts

Maximum Circuit Values (CCS or ICAS conditions):

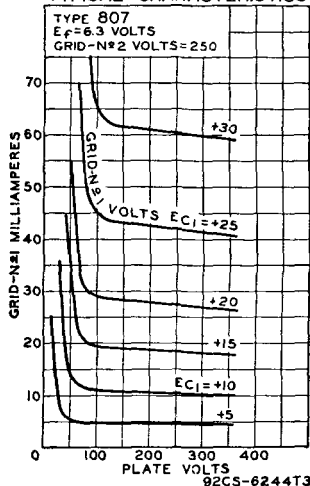
Grid-No.1-Circuit Resistance 30000 max ohms

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.

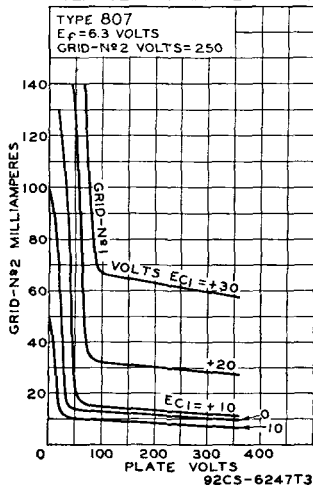
^a Obtained preferably from a separate source, from plate-voltage supply with a voltage divider, or through series resistor of value shown. Grid-No.2 voltage must not exceed 400 volts under key-up conditions.

• Obtained from fixed supply, by grid-No.1 resistor, by cathode resistor, or by combination methods.

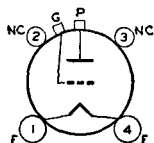
TYPICAL CHARACTERISTICS



AVERAGE CHARACTERISTICS



POWER TRIODE



Thoriated-tungsten-filament type used as rf power amplifier and oscillator. May be used with full input up to 30 Mc and with reduced input up to 130 Mc. Class C Telephony maximum plate dissipation, CCS 50 watts, ICAS 75 watts.

808

FILAMENT VOLTAGE (AC/DC)	.5	volts
FILAMENT CURRENT	4.0	amperes
AMPLIFICATION FACTOR	47	
DIRECT INTERELECTRODE CAPACITANCES:		
Grid to plate	2.8	μf
Grid to filament	5.3	μf
Plate to filament	0.25	μf