

RCA Transmitting Tubes

FILAMENT VOLTAGE (AC/DC)	2.5	volts
FILAMENT CURRENT	2.0	amperes
TRANSCONDUCTANCE (For plate current of 50 milliamperes)	4500	μ mhos
DIRECT INTERELECTRODE CAPACITANCES:		
Grid No.1 to plate	0.45 max	μ f
Grid No.1 to filament, grid No.3, grid No.2, and shell	9.6	μ f
Plate to filament, grid No.3, grid No.2, and shell	12.5	μ f

AF POWER AMPLIFIER AND MODULATOR—Class AB₁

Maximum CCS Ratings:

DC PLATE VOLTAGE	400 max	volts
DC GRID-NO.2 (SCREEN-GRID) VOLTAGE	300 max	volts
MAXIMUM-SIGNAL DC PLATE CURRENT [■]	75 max	ma
MAXIMUM-SIGNAL PLATE INPUT [■]	30 max	watts
GRID-NO.2 INPUT [■]	3.5 max	watts
PLATE DISSIPATION [■]	15 max	watts

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

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

and

RF POWER AMPLIFIER—Class C FM Telephony

Maximum CCS Ratings:

DC PLATE VOLTAGE	400 max	volts
DC GRID-NO.2 VOLTAGE	300 max	volts
DC GRID-NO.1 (CONTROL-GRID) VOLTAGE	-125 max	volts
DC PLATE CURRENT	75 max	ma
DC GRID-NO.1 CURRENT	5 max	ma
PLATE INPUT	30 max	watts
GRID-NO.2 INPUT	3.5 max	watts
PLATE DISSIPATION	15 max	watts

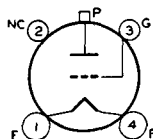
Maximum Circuit Values:

Grid-No.1-Circuit Resistance	25000 max	ohms
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[#] 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.

POWER TRIODE

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 60 Mc and with reduced input up to 100 Mc. 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 40, *Outlines* Section. Plate does not show color when tube is operated at maximum CCS ratings. The 1623 is used principally for renewal purposes.



1623

FILAMENT VOLTAGE (AC/DC)	6.3	volts
FILAMENT CURRENT	2.5	amperes
AMPLIFICATION FACTOR	20	
DIRECT INTERELECTRODE CAPACITANCES:		
Grid to plate	6.7	μ f
Grid to filament	5.2	μ f
Plate to filament	0.9	μ f

Maximum CCS Ratings:

	Class B Modulator	Class C Telephony [#]	
DC PLATE VOLTAGE	750 max	750 max	volts
DC GRID VOLTAGE	—	-200 max	volts
DC PLATE CURRENT	100 [■] max	100 max	ma
DC GRID CURRENT	—	25 max	ma
PLATE INPUT	75 [■] max	75 max	watts
PLATE DISSIPATION	25 [■] max	25 max	watts

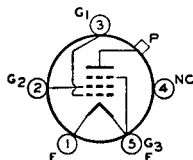
[#] Key-down conditions per tube without amplitude modulation. Amplitude modulation essentially neg-

ative may be used if the positive peak of the audio-frequency envelope does not exceed 115 per cent of the carrier conditions.

• For maximum-signal conditions.

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

BEAM POWER TUBE



Coated-filament type used 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. Requires Small five-contact socket and may be mounted in vertical position only, base up or down. OUTLINE 31, *Outlines* Section, except has no bayonet pin. Plate shows

1624

no color when tube is operated at maximum CCS ratings. The 1624 is used principally for renewal purposes.

FILAMENT VOLTAGE (AC/DC)	2.5	volts
FILAMENT CURRENT	2.0	amperes
TRANSCONDUCTANCE (For plate current of 50 milliamperes)	4000	μ mhos
DIRECT INTERELECTRODE CAPACITANCES:		
Grid No.1 to plate (With external shielding)	0.25 max	μ f
Grid No.1 to filament, grid No.3, and grid No.2	11	μ f
Plate to filament, grid No.3, and grid No.2	7.5	μ f

RF POWER AMPLIFIER AND OSCILLATOR—Class C Telephony# and

RF POWER AMPLIFIER—Class C FM Telephony

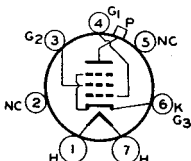
Maximum CCS Ratings:

DC PLATE VOLTAGE	600 max	volts
DC GRID-NO.2 (SCREEN-GRID) VOLTAGE	300 max	volts
DC GRID-NO.1 (CONTROL-GRID) VOLTAGE	-200 max	volts
DC PLATE CURRENT	90 max	ma
DC GRID-NO.1 CURRENT	5 max	ma
PLATE INPUT	54 max	watts
GRID-NO.2 INPUT	3.5 max	watts
PLATE DISSIPATION	25 max	watts

Maximum Circuit Values:

Grid-No.1-Circuit Resistance	25000 max	ohms
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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.



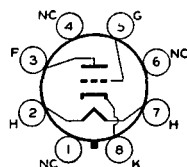
BEAM POWER TUBE

Heater-cathode type used as af power amplifier and modulator and as rf power amplifier and oscillator. Requires Medium seven-contact socket and may be mounted in any position.

1625

OUTLINE 31, *Outlines* Section, except has no bayonet pin. Heater volts (ac/dc), 12.6 $\pm$ 10%; amperes, 0.45. Except for heater rating and base, this type is identical with type 807.

POWER TRIODE



Glass-octal heater-cathode type used 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 96 per cent of maximum ratings; at 90 Mc, to 93 per cent. Requires Octal socket and may be mounted in any position. OUTLINE 19, *Outlines* Section. Plate shows no color when tube is operated at maximum CCS ratings. The 1626 is used principally for renewal purposes.

1626

RCA Transmitting Tubes

HEATER VOLTAGE (AC/DC)	12.6	volts
HEATER CURRENT	0.25	ampere
AMPLIFICATION FACTOR	5	
DIRECT INTERELECTRODE CAPACITANCES:		
Grid to plate	4.4	μf
Grid to cathode and heater	3.2	μf
Plate to cathode and heater	3.0	μf

RF POWER AMPLIFIER AND OSCILLATOR—Class C Telegraphy# and

RF POWER AMPLIFIER—Class C FM Telephony

Maximum CCS Ratings:

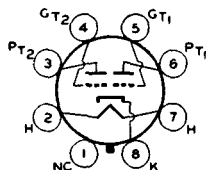
DC PLATE VOLTAGE	250 max	volts
DC GRID VOLTAGE	-150 max	volts
DC PLATE CURRENT	25 max	ma
DC GRID CURRENT	8 max	ma
PLATE INPUT	6.25 max	watts
PLATE DISSIPATION	5 max	watts
PEAK HEATER-CATHODE VOLTAGE:		
Heater negative with respect to cathode	100 max	volts
Heater positive with respect to cathode	100 max	volts

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.

HIGH-MU TWIN TRIODE

Glass-octal heater-cathode type used as af power amplifier. Class B AF Power Amplifier maximum CCS plate dissipation (design-center value, per plate), 3 watts. Requires Octal socket and may be mounted in any position. OUTLINE 13, *Outlines* Section. Plates show no color when tube is operated at maximum ratings. The 1635 is used principally for renewal purposes.

1635



HEATER VOLTAGE (AC/DC)	6.3	volts
HEATER CURRENT	0.6	ampere

AF POWER AMPLIFIER—Class B

Maximum CCS Ratings:

DC PLATE VOLTAGE	300 max	volts
PEAK PLATE CURRENT (Per plate)	90 max	ma
PLATE DISSIPATION (Per plate)	3 max	watts
PEAK HEATER-CATHODE VOLTAGE:		
Heater negative with respect to cathode	90 max	volts
Heater positive with respect to cathode	90 max	volts

Typical Operation (Unless otherwise specified, values are for 2 units):

DC Plate Voltage	300	300	volts
DC Grid Voltage	0	0	volts
Peak AF Grid-to-Grid Voltage	70	108*	volts
Zero-Signal DC Plate Current	6.6	6.6	ma
Maximum-Signal DC Plate Current	54	54	ma
Peak Grid Current (Per unit)	38	39	ma
Plate-Supply Impedance	0	1000 [■]	ohms
Effective Load Resistance (Plate to plate)	12000	12000	ohms
Effective Grid-Circuit Impedance (Per unit)	0	516*	ohms
Total Harmonic Distortion	4	5	per cent
Maximum-Signal Power Output	10.4	10.4	watts

* Includes peak voltage drop through the grid-circuit impedance.

■ Practical design value.

* At 400 cycles for class B stage in which the effective resistance per grid circuit is 500 ohms, and the leakage reactance of the coupling transformer is 50 millihenries. The driver stage should be capable of supplying the grids of the class B stage with the specified values at low distortion.