

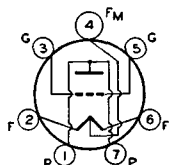
Operating Values:

Circuit
(For circuit figures, refer to
Rectifier Considerations
Section)

Fig.	Max. Trans. Sec. Volts (RMS) E	Approx. DC Output Volts To Filter Eav	Max. DC Output Amperes Iav	Max. DC Output KW To Filter Pdc
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In-Phase Operation					
Half-Wave Single-Phase...	54	5300	2400	0.125	0.3
Full-Wave Single-Phase...	55	2600	2400	0.250	0.6
Series Single-Phase.....	56	5300	4800	0.250	1.2
Half-Wave Three-Phase...	57	3000	3600	0.750	2.7
Quadrature Operation					
Parallel Three-Phase.....	58	3000	3600	1.5	5.4
Series Three-Phase.....	59	3000	7200	0.75	5.4
Half-Wave Four-Phase.....	60	2600	3500	0.45* 0.5□	1.55* 1.75□
Half-Wave Six-Phase.....	61	2600	3600	0.47* 0.5□	1.70* 1.80□

* Resistive load. □ Inductive load.



POWER TRIODE

Thoriated-tungsten-filament type used as rf power amplifier and oscillator. May be used with full input up to 250 Mc and with reduced input up to 300 Mc. Class C Telegraphy maximum plate dissipation, with natural cooling, CCS 45 watts, ICAS 55 watts; with forced-air cooling, CCS 60 watts, ICAS 75 watts.

826

FILAMENT VOLTAGE (AC/DC)	7.5	volts
FILAMENT CURRENT	4	amperes
AMPLIFICATION FACTOR	31	
DIRECT INTERELECTRODE CAPACITANCES:		
Grid to plate	3	μf
Grid to filament mid-tap	3	μf
Plate to filament mid-tap	1.1	μf

PLATE-MODULATED RF POWER AMPLIFIER—Class C Telephony

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

Maximum Ratings:	Natural Cooling		Forced-Air Cooling		
	CCS	ICAS	CCS	ICAS	
DC PLATE VOLTAGE	800 max	1000 max	800 max	1000 max	volts
DC GRID VOLTAGE	-600 max	-600 max	-600 max	-600 max	volts
DC PLATE CURRENT	95 max	125 max	95 max	125 max	ma
DC GRID CURRENT	40 max	40 max	40 max	40 max	ma
PLATE INPUT	60 max	95 max	75 max	125 max	watts
PLATE DISSIPATION	30 max	45 max	40 max	60 max	watts

Typical Operation:

DC Plate Voltage	—	1000	800	1000	volts
DC Grid Voltage†	—	-160	-100	-100	volts
From grid resistor of	—	4000	2800	2800	ohms
Peak RF Grid Voltage	—	320	198	210●	volts
DC Plate Current	—	95	94	125	ma
DC Grid Current (Approx.)	—	40	35	35	ma
Driving Power (Approx.)	—	11.5	6.3	6.6	watts
Power Output (Approx.)	—	70	53	90	watts

† For ac filament supply.

● Obtained by grid resistor of value shown. Fixed-bias operation is not recommended for linear modulation.

● To obtain linear modulation to 100 per cent, the driver stage should be modulated approximately 10 per cent.

RF POWER AMPLIFIER AND OSCILLATOR—Class C Telephony# and

RF POWER AMPLIFIER—Class C FM Telephony

Maximum Ratings:	Natural Cooling		Forced-Air Cooling		
	CCS	ICAS	CCS	ICAS	
DC PLATE VOLTAGE	1000 max	1000 max	1000 max	1250 max	volts
DC GRID VOLTAGE	-600 max	-600 max	-600 max	-600 max	volts

RCA Transmitting Tubes

DC PLATE CURRENT.....	125 max	140 max	125 max	140 max	ma
DC GRID CURRENT.....	40 max	40 max	40 max	40 max	ma
PLATE INPUT.....	95 max	130 max	125 max	175 max	watts
PLATE DISSIPATION.....	45 max	55 max	60 max	75 max	watts

Typical Operation:

DC Plate Voltage.....	—	1000	1000	1250	volts
DC Grid Voltage ^Δ	—	-70	-70	-125	volts
From grid resistor of.....	—	2000	2000	3600	ohms
From cathode resistor of.....	—	425	440	780	ohms
Peak RF Grid Voltage.....	—	183	183	245	volts
DC Plate Current.....	—	130	125	125	ma
DC Grid Current (Approx.).....	—	35	35	35	ma
Driving Power (Approx.).....	—	5.8	5.8	7.7	watts
Power Output (Approx.).....	—	90	86	120	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.

† For ac filament supply.

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

OPERATING CONSIDERATIONS

Type 826 requires Septar seven-contact socket and may be mounted in vertical position only, base up or down. OUTLINE 16, *Outlines* Section.

For operation at 300 Mc, plate voltage and plate input should be reduced to 80 per cent of maximum ratings. Plate shows an orange-red color when tube is operated at maximum CCS ratings, and shows a bright orange-red color at maximum ICAS ratings.

When the 826 is used in the final amplifier or a preceding stage of a transmitter designed for break-in operation and oscillator keying, a small amount of fixed bias must be used to maintain the plate current at a safe value. With plate voltage of 1250 volts, a fixed bias of at least -22.5 volts should be used.

