

Water Cooled Oscillator R.F. Power Amplifier

MAXIMUM RATINGS AND TYPICAL OPERATING CONDITIONS

R.F. Power Amplifier—Class B—Telephony

(Carrier conditions for use with a maximum modulation factor of 1.0)

	Maximum Rating per Tube	Typical Operation One Tube
D.C. Filament Voltage	—	11
D.C. Plate Voltage	7500	7000
D.C. Grid Voltage	—	-150
Plate Load Resistance (ohms)	—	4000
Peak R.F. Grid Voltage	—	600
D.C. Plate Current (amps.)	0.5	0.45
Plate Input (kw.)	3.75	3.15
Plate Dissipation (kw.)	2.5	2.15
Driving Power (Approx.) (watts)	—	175
Power Output (kw.)	—	1
Frequency Limit for Above Operation (mc.)	50	60

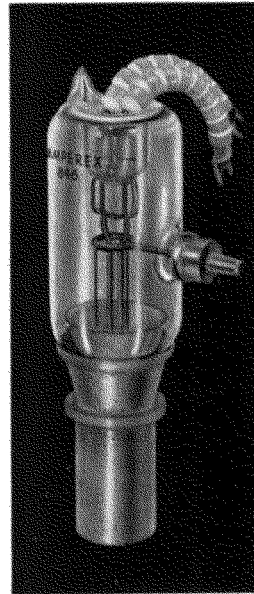
Plate Modulated R.F. Power Amplifier Class C—Telephony

(Carrier conditions for use with a maximum modulation factor of 1.0)

	Maximum Rating per Tube	Typical Operation One Tube		
A.C. Filament Voltage	—	11	11	11
D.C. Plate Voltage	6000	4000	5000	6000
D.C. Grid Voltage	-1000	-850	-900	-950
Plate Load Resistance (ohms)	—	5900	5900	5600
Peak R.F. Grid Voltage	—	1600	1700	1950
D.C. Plate Current (amps.)	0.5	0.3	0.4	0.5
Plate Input (kw.)	3	1.2	2.0	3.0
Plate Dissipation (kw.)	1.66	.3	.5	.75
D.C. Grid Current (Approx.) (amps.)	0.15	0.080	0.100	0.125
Driving Power (Approx.) (watts)	—	125	175	200
Power Output (kw.)	—	0.9	1.5	2.25
Frequency Limit for Above Operation (mc.)	50	100	75	50

GENERAL CHARACTERISTICS

Filament Voltage (AC or DC)	11
Filament Current (amps)	51
Amplification Factor	40
Grid to Plate Transconductance at plate current of .5 Ampere	2800 micromhos
Direct Interelectrode Capacitances:	
Grid to Plate	9 $\mu\mu\text{f}$
Grid to Filament	6.5 $\mu\mu\text{f}$
Plate to Filament	1.5 $\mu\mu\text{f}$
Dimensions:	
Maximum Overall Length	9½"
Maximum Radius	3¾"
Base	None
Water Jacket	Special



R.F. Power Amplifier and Oscillator—Class C Telegraphy

Key-down conditions without modulation.

	Maximum Rating per Tube	Typical Operation One Tube		
A.C. Filament Voltage	—	11	11	11
D.C. Plate Voltage	7500	5000	6000	7000
D.C. Grid Voltage	-1000	-800	-850	-900
Plate Load Resistance (ohms)	—	3800	3600	3600
Peak R.F. Grid Voltage	—	1850	2050	2300
D.C. Plate Current (amps.)	1.0	0.60	0.75	0.90
Plate Input (kw.)	7.5	3.0	4.5	6.3
Plate Dissipation (kw.)	2.5	1.0	1.5	2.0
D.C. Grid Current (Approx.) (amps.)	0.15	0.11	0.125	0.14
Driving Power (watts)	—	175	235	300
Plate Power Output (kw.)	—	2	3	4.3
Frequency Limit for Above Operation (mc.)	50	100	75	60

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