

R.F. Power Amplifier, Oscillator, A.F. Power Amplifier or Modulator

MAXIMUM RATINGS AND TYPICAL OPERATING CONDITIONS

A.F. Power Amplifier and Modulator—Class B

	Maximum Rating per Tube	Typical Operation Two Tubes	
A.C. Filament Voltage	—	21	21.5
D.C. Plate Voltage	6000	5000	6000
D.C. Grid Voltage	—	—265	—325
Load Resistance (ohms per tube)	—	2100	1500
Effective Load Resistance (Plate to Plate) (ohms)	—	8400	6000
Zero Signal Plate Current (ma.)	—	300	300
Peak A.F. Grid to Grid Voltage	—	1030	1650
Max. Signal D.C. Plate Current (amps.)	1.5	1.2	2.2
Max. Signal Plate Input (kw.)	9	6	13.2
Plate Dissipation (kw.)	9	1.125*	4.2*
Max. Signal Driving Power (Approx.) (watts)	—	40	380
Max. Signal Plate Power Output (watts)	—	3750	9000

*Averaged over an audio cycle of sine-wave form under maximum-signal conditions

R.F. Power Amplifier—Class B—Telephony

(Carrier conditions for use with modulation factor of 1.0)

	Maximum Rating per Tube	Typical Operation One Tube	
A.C. Filament Voltage	—	21	21.5
D.C. Plate Voltage	6000	4000	5000
D.C. Grid Voltage	—	—200	—280
Plate Load Resistance (ohms)	—	2900	2200
Peak R.F. Grid Voltage	—	290	415
D.C. Plate Current (ma.)	750	380	606
Plate Input (watts)	4500	1515	3030
Plate Dissipation (watts)	3000	1000	2030
D.C. Grid Current (Approx.) (ma.)	—	8	6
Driving Power at Peak Modulation (Approx.) (watts)	—	60	125
Plate Power Output (watts)	—	515	1000
Frequency Limit for Above Operation (mc.)	3	10	6
F.C.C. Broadcast Rating (watts)	1000	500	1000

GENERAL CHARACTERISTICS

Filament Voltage	21.5
Filament Current (amps)	41.0
Amplification Factor	17
Grid to Plate Transcon- ductance @ .9 ampere	6500 micromhos
Direct Interelectrode Capacitances:	
Grid to Plate	23.4 $\mu\mu\text{f}$
Grid to Filament	15.0 $\mu\mu\text{f}$
Plate to Filament	3.0 $\mu\mu\text{f}$

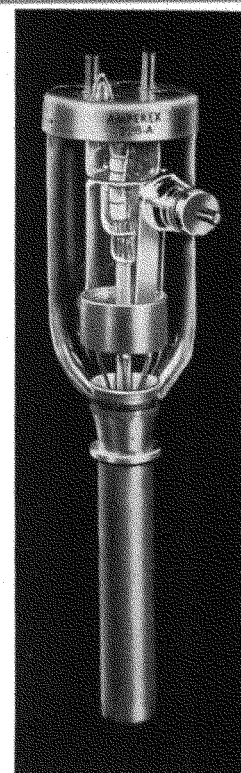
Plate Modulated R.F. Power Amplifier Class C—Telephony

(Carrier conditions for use with modulation factor of 1.0)

	Maximum Rating per Tube	Typical Operation One Tube
A.C. Filament Voltage	—	21.5
D.C. Plate Voltage	6000	4000
D.C. Grid Voltage	—1000	—500
Plate Load Resistance (ohms)	—	1800
Peak R.F. Grid Voltage	—	1000
D.C. Plate Current (amps.)	1	.96
Plate Input (watts)	6000	3840
Plate Dissipation (watts)	3500	1300
D.C. Grid Current (Approx.) (ma.)	150	105
Driving Power (Approx.) (watts)	—	100
Plate Power Output (watts)	—	2540
Frequency Limit for Above Operation (mc.)	3	7.5
F.C.C. Broadcast Rating (watts)	2500	2500

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

	Maximum Rating per Tube	Typical Operation One Tube
A.C. Filament Voltage	—	21
D.C. Plate Voltage	6000	6000
D.C. Grid Voltage	—1000	—600
Plate Load Resistance (ohms)	—	2200
Peak R.F. Grid Voltage	—	1200
D.C. Plate Current (amps.)	1.5	1.25
Plate Input (watts)	9000	7500
Plate Dissipation (watts)	5000	2400
D.C. Grid Current (Approx.) (ma.)	150	110
Driving Power (Approx.) (watts)	—	120
Plate Power Output (watts)	—	5100
Frequency Limit for Above Operation (mc.)	3	3



AMPEREX

228-A

228-A—AMPEREX TRANSMITTING TUBE

