

## Class B A.F. Power Amplifier and Modulator,

## R.F. Power Amplifier, Oscillator

### 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	—	10	10
D.C. Plate Voltage	1250	1000	1250
D.C. Grid Voltage	—	0	0
Load Resistance (ohms per tube)	—	1725	2250
Effective Load Resistance (Plate to Plate) (ohms)	—	6900	9000
Zero Signal Plate Current (ma.)	—	106	148
Peak A.F. Grid to Grid Voltage	—	200	200
Max. Signal D.C. Plate Current (ma.)	175	320	320
Max. Signal Plate Input (watts)	220	320	400
Plate Dissipation (watts)	100	—	—
Max. Signal Driving Power (Approx.) (watts)	—	6.5	7.0
Max. Signal Plate Power Output (watts)	—	216	280

#### 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	—	10	10
D.C. Plate Voltage	1250	1000	1250
D.C. Grid Voltage	—	0	-14
Peak R.F. Grid Voltage	—	65	67
D.C. Plate Current (ma.)	150	130	106
Plate Input (watts)	—	130	132
Plate Dissipation (watts)	100	88	87
D.C. Grid Current (Approx.) (ma.)	—	11	8
Driving Power at Peak Modulation (Approx.) (watts)	—	4.5	4
Plate Power Output (watts)	—	42	45
Frequency Limit for Above Operation (mc.)	30	40	30

### GENERAL CHARACTERISTICS

Filament Voltage	10
Filament Current (amps)	3.25
Amplification Factor (Approx.)	50
Grid to Plate Transconductance @ 100 ma.	4800 micromhos
Direct Interelectrode Capacitances:	
Grid to Plate	8.0 $\mu\mu\text{i}$
Grid to Filament	6.5 $\mu\mu\text{i}$
Plate to Filament	3.0 $\mu\mu\text{i}$

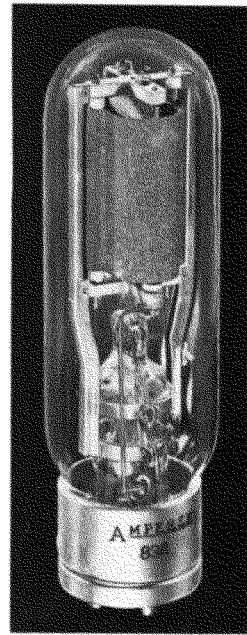
#### Plate Modulated R.F. Power Amplifier Class C—Telephony

(Carrier conditions for use with modulation factor of 1.0)

	Maximum Rating per Tube	Typical Operation One Tube	
A.C. Filament Voltage	—	10	10
D.C. Plate Voltage	1000	750	1000
D.C. Grid Voltage	-400	-100	-135
Peak R.F. Grid Voltage	—	220	255
D.C. Plate Current (ma.)	175	150	150
Plate Input (watts)	175	112	150
Plate Dissipation (watts)	67	42	45
D.C. Grid Current (Approx.) (ma.)	70	30	24
Driving Power (Approx.) (watts)	—	6	6
Plate Power Output (watts)	—	70	105
Frequency Limit for Above Operation (mc.)	30	50	30
F.C.C. Broadcast Rating (watts)	75	—	75

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

	Maximum Rating per Tube	Typical Operation One Tube	
A.C. Filament Voltage	—	10	10
D.C. Plate Voltage	1250	1000	1250
D.C. Grid Voltage	-400	-135	-150
Peak R.F. Grid Voltage	—	255	280
D.C. Plate Current (ma.)	175	150	160
Plate Input (watts)	220	150	200
Plate Dissipation (watts)	100	45	50
D.C. Grid Current (Approx.) (ma.)	70	24	26
Driving Power (Approx.) (watts)	—	6	7
Plate Power Output (watts)	—	105	150
Frequency Limit for Above Operation (mc.)	30	50	30



**AMPEREX**

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# 838 - AMPEREX TRANSMITTING TUBE

