

AMPEREX TRANSMITTING TUBE 203-H

FULLY INTERCHANGEABLE WITH HF-125

R.F. Power Amplifier, Oscillator,

A.F. Power Amplifier, 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 | .. | 10 | 10 |
| D.C. Plate Voltage | 1500 | 1250 | 1500 |
| D.C. Grid Voltage | .. | -45 | -52 |
| Load Resistance (per tube) (ohms) | .. | 2250 | 2750 |
| Effective Load Resistance (Plate to Plate) (ohms) | .. | 9000 | 11000 |
| Zero Signal Plate Current (ma.) | .. | 26 | 30 |
| Peak A.F. Grid to Grid Voltage | .. | 300 | 304 |
| Max. Signal D.C. Plate Current (ma.) | 175 | 320 | 320 |
| Max. Signal Plate Input (watts) | 250 | 400 | 480 |
| Plate Dissipation (watts) | 100 | .. | .. |
| Max. Signal Driving Power (Approx.) (watts) | .. | 7 | 5.5 |
| Max. Signal Plate Power Output (watts) | .. | 280 | 340 |

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 | 1500 | 1250 | 1500 |
| D.C. Grid Voltage | .. | -37 | -48 |
| Peak R.F. Grid Voltage | .. | 85 | 84 |
| D.C. Plate Current (ma.) | 150 | 116 | 100 |
| Plate Input (watts) | 150 | 145 | 150 |
| Plate Dissipation (watts) | 100 | 95 | 98 |
| D.C. Grid Current (Approx.) (ma.) | .. | 4.5 | 3 |
| Driving Power at Peak Modulation (Approx.) (watts) | .. | 3 | 2 |
| Plate Power Output (watts) | .. | 50 | 52 |
| Frequency Limit for Above Operation (megacycles) | 30 | 30 | 30 |

GENERAL CHARACTERISTICS

| | |
|---|-----------------------|
| Filament: | |
| Voltage | 10 volts |
| Current | 3.25 amperes |
| Amplification Factor | 25 |
| Grid to Plate Transconductance at 100 ma. | 4500 micromhos |
| Direct Interelectrode Capacitances: | |
| Grid to Plate | 11.5 $\mu\mu\text{f}$ |
| Grid to Filament | 6.5 $\mu\mu\text{f}$ |
| Plate to Filament | 1.5 $\mu\mu\text{f}$ |

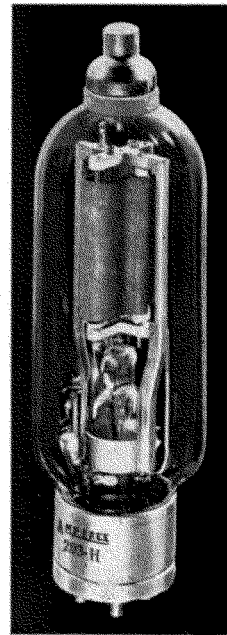
Plate Modulated R.F. Power Amplifier Class C—Telephony

(Carrier conditions for use with modulation factor of 1.0)

| | Maximum Rating per Tube | Typical Operation One Tube | |
|--|-------------------------|----------------------------|------|
| | | | |
| A.C. Filament Voltage | .. | 10 | 10 |
| D.C. Plate Voltage | 1250 | 1000 | 1250 |
| D.C. Grid Voltage | -400 | -135 | -160 |
| Peak R.F. Grid Voltage | .. | 265 | 300 |
| D.C. Plate Current (ma.) | 175 | 160 | 167 |
| Plate Input (watts) | 210 | 160 | 208 |
| Plate Dissipation (watts) | 85 | 40 | 48 |
| D.C. Grid Current (Approx.) (ma.) | 60 | 18 | 19 |
| Driving Power (Approx.) (watts) | .. | 4.5 | 5 |
| Plate Power Output (watts) | .. | 120 | 160 |
| Frequency Limit for Above Operation (megacycles) | 30 | 40 | 30 |
| F.C.C. Broadcast Rating (watts) | 125 | .. | 125 |

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 | 1500 | 1250 | 1500 |
| D.C. Grid Voltage | -400 | -160 | -200 |
| Peak R.F. Grid Voltage | .. | 300 | 340 |
| D.C. Plate Current (ma.) | 175 | 175 | 170 |
| Plate Input (watts) | 260 | 219 | 255 |
| Plate Dissipation (watts) | 100 | 49 | 55 |
| D.C. Grid Current (Approx.) (ma.) | 60 | 15 | 12 |
| Driving Power (Approx.) (watts) | .. | 4 | 3.8 |
| Plate Power Output (watts) | .. | 170 | 200 |
| Frequency Limit for Above Operation (megacycles) | 30 | 30 | 30 |



AMPEREX

203-H

203-H-AMPEREX TRANSMITTING TUBE

