TYPE 342A
WATER COOLED TRIODE

RELEASE NO. 405
APRIL 30, 1945

Filament—Tungsten

- Filament voltage: 20.0 volts, a.c.
- Nominal filament current: 67.0 amperes
- Average thermionic emission: 10.0 amperes

Average Direct Interelectrode Capacitances

- Plate to grid: 27 µf.
- Grid to filament: 19 µf.
- Plate to filament: 2.5 µf.

Average Characteristics at plate voltage of 15,000 and plate current of 1.30 amperes.

- Amplification factor: 40
- Plate resistance: 6860 ohms
- Grid to plate transconductance: 6830 micromhos

Operation

Maximum Ratings

- Max. direct plate voltage: 20,000 volts
- Max. direct plate current: 2.5 amperes
- Max. plate dissipation: 25,000 watts
- Max. grid dissipation: 400 watts
- Max. r-f grid current: 40 amperes
- Max. frequency for the above ratings: 4 megacycles
- Max. plate voltage for upper frequency limit of 16 Mc.: 10,000 volts

Class B Audio Amplifier or Modulator for Balanced 2 Tube Circuit

- Direct plate voltage: 15,000 volts
- Grid bias: -200 to -160 volts
- Direct plate current per tube:
  - No drive: 0.40 amperes
  - Max. drive: 1.6 amperes
- Plate dissipation, per tube: 9,600 watts
- Load resistance, plate-to-plate: 7,680 ohms
- Load resistance, per tube: 2,400 ohms
- Approximate maximum output—2 tubes: 30,000 watts
- Recommended power for driving stage: 1,000 watts

Class B Radio-Frequency Amplifier

- Direct plate voltage: 18,000 volts
- Direct plate current for carrier conditions: 1.4 amperes
- Grid bias: -450 volts
- Approx. carrier watts for use with 100% modulation: 8,500 watts

Class C Radio-Frequency Oscillator or Power Amplifier—Unmodulated

- Direct plate voltage: 18,000 volts
- Direct plate current: 2.5 amperes
- Grid bias: -675 to -900 volts
- Nominal power output: 25,000 watts

Class C Radio-Frequency Amplifier—Plate Modulated

- Direct plate voltage: 12,500 volts
- Direct plate current: 1.2 amperes
- Grid bias: -600 volts
- Max. direct grid current: 250 milliamperes
- Nominal carrier power output: 10,000 watts