



Single-ended Water-cooled R.F. Power Amplifier Triode

3Q/221E

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CATHODE.

Tungsten filament

Nominal voltage (Actual voltage marked on
bulb)

22

V

Nominal current

70

A

Peak emission

12

A

RATING.

Amplification factor { Measured at V_a } 26
Impedance { 12kV I_a 1.5A } 2,900

Ω

DIRECT INTER-ELECTRODE CAPACITIES.

Grid to anode 17

pF

Grid to filament 29

pF

Anode to filament 1

pF

WATER FLOW

Water Jacket type 3005A

Normal water flow

11 gal. per min.

Pressure drop for normal flow

14 lb. per sq. in.

Maximum water pressure

50 lb. per sq. in.

DIMENSIONS.

Maximum overall length 520

mm.

Net weight 3.6

kg.

MAXIMUM RATINGS.

Maximum direct anode voltage 17,500

V

Maximum direct anode current 2.5

A

Maximum anode dissipation 20

kW

Maximum grid dissipation 1.2

kW

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TYPICAL OPERATING CONDITIONS

RADIO FREQUENCY

Class B Telephony. Modulated. Carrier applied to grid.

(Carrier conditions per valve for use with 100% modulation).

Direct anode voltage	15	kV
Grid bias	—600	V
Direct anode current	2.0	A
Power output	10	kW approx.

Class C Power Amplifier. Anode subject to modulation.

(Carrier conditions per valve for use with 100% modulation).

Direct anode voltage	15	kV
Grid bias	—2,000	V approx.
Direct anode current	2	A
Power output	20	kW approx.

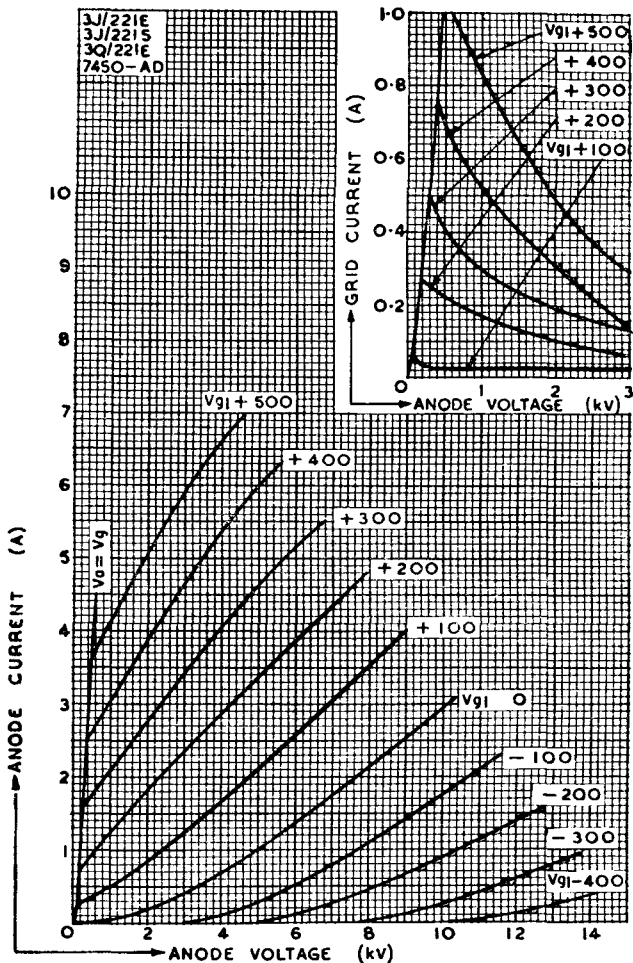
Class C Power Amplifier or Oscillator, unmodulated.

Direct anode voltage	17	kV
Grid bias	—1,600	V approx.
Direct anode current	2.5	A
Power output	30	kW approx.



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