



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

3Q/221E

CATHODE.

Tungsten filament

Nominal voltage (Actual voltage marked on bulb)

Nominal current

Peak emission

22

70

12

V

A

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.

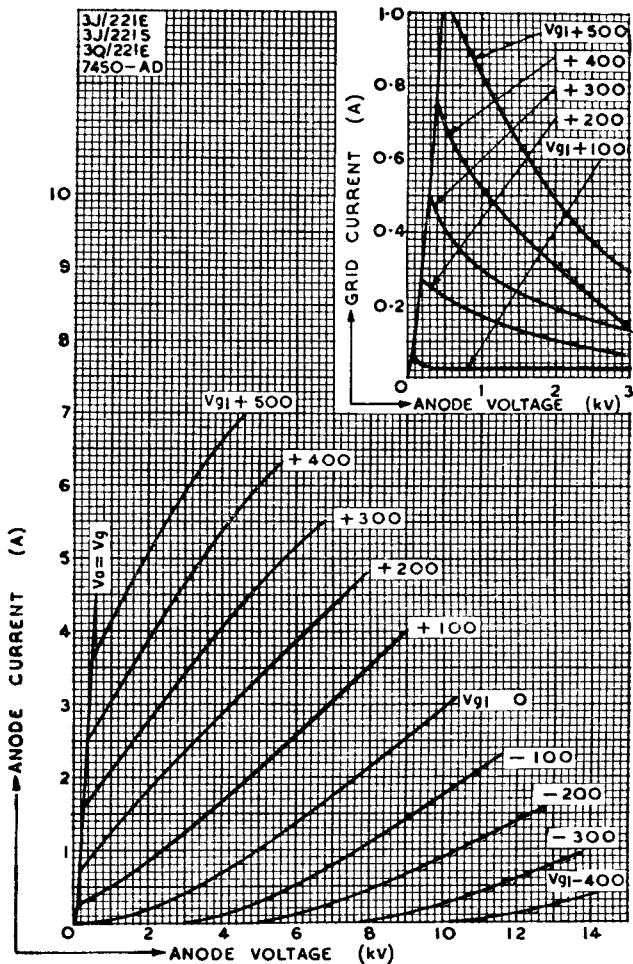
Class C Power Amplifier or Oscillator, unmodulated.

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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