



Air-Blast-Cooled R.F. Power Amplifier Triode 3J/221E

CATHODE.

Tungsten filament		
Nominal (Actual voltage marked on bulb)	22	V
Nominal current	70	A
Peak emission	12	A

RATING.

Amplification factor	Measured at	26	
Impedance	{ Va 12 kV, Ia 1.5 A }	2,900	Ω

DIRECT INTER-ELECTRODE CAPACITIES.

Grid to anode	26	pF
Grid to filament	1.3	pF
Anode to filament	20.0	pF

AIR COOLING.

For anode dissipation of 20 kW.

Volume of air at a pressure of 2in. of water 2,000 cu. ft./min.

Maximum temperature of core of cooler 150° C.

Maximum ambient temperature 45° C.

DIMENSIONS.

Maximum overall length	520	mm.
Maximum diameter over cooler	302	mm.
Net weight	8.15	kg.

MAXIMUM RATINGS.

Maximum direct anode voltage	17.5	kV.
Maximum direct anode current	2.5	A.
Maximum anode dissipation	20	kW.
Maximum grid dissipation	1.2	kW.
Maximum frequency for above ratings	22	Mc/s

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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.	

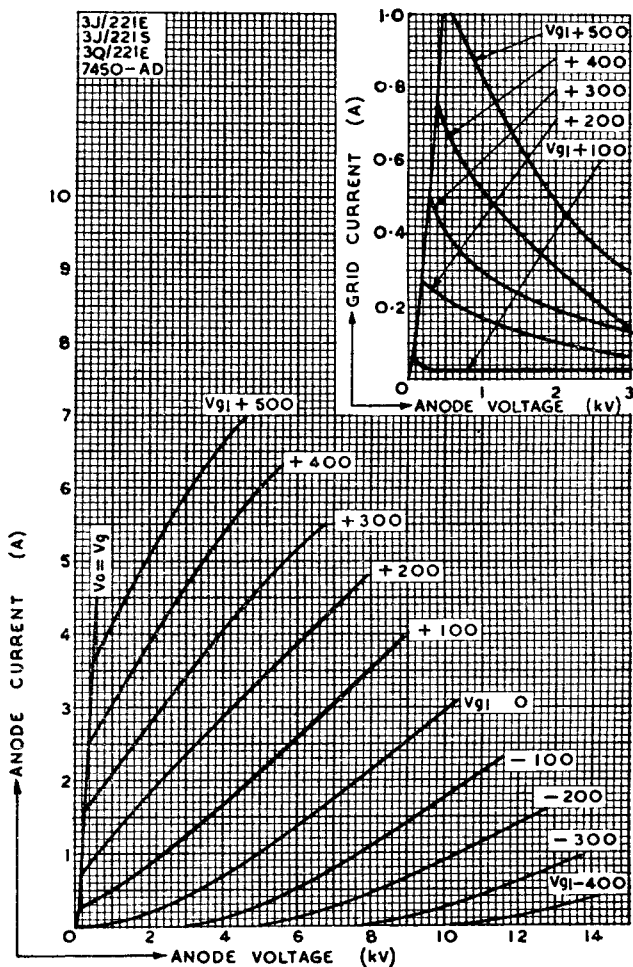
Class C Power Amplifier or Oscillator, unmodulated.

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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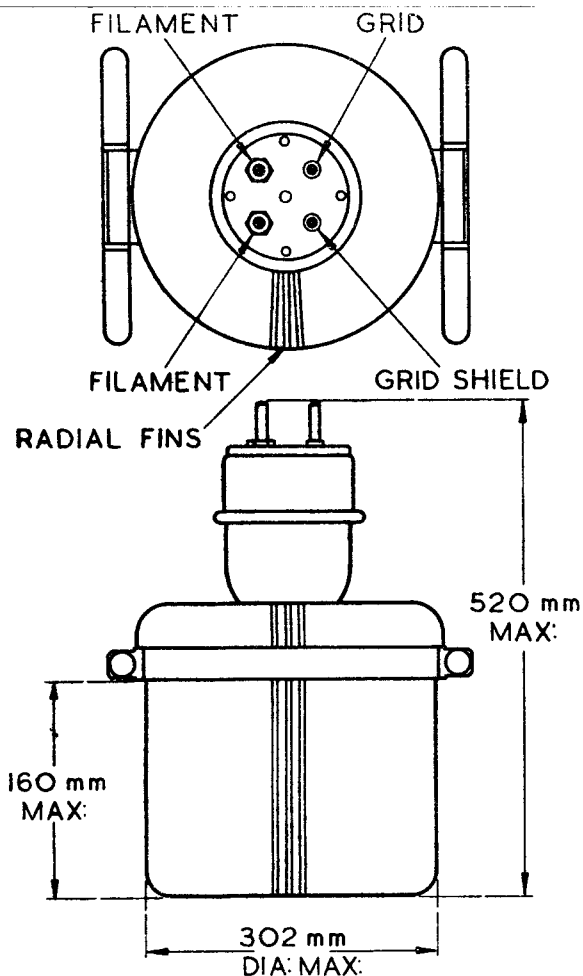
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