



# Air-Blast-Cooled R.F.

## Triode

### 3J/191E

#### CATHODE.

Thoriated tungsten filament

Voltage	10	V
Nominal current	33	A
Peak emission	12	A

#### RATING.

Amplification factor	$\left\{ \begin{array}{l} \text{Measured at} \\ \text{Va5kV Ia 0.8A} \end{array} \right\}$	26	
Impedance		3,450	$\Omega$

#### DIRECT INTER-ELECTRODE CAPACITIES.

Anode to grid	12.5	pF
Anode to filament	2	pF
Grid to filament	11	pF

#### DIMENSIONS.

Maximum overall length	370	mm.
Maximum diameter over cooler	155	mm.

#### AIR COOLING.

For 5.0kW Anode dissipation

Volume of air at a pressure of 1.5in. of water	600	cu. ft./min.
Ambient temperature of air	25°	C
Outlet air temperature above ambient	15°	C

#### MAXIMUM RATINGS.

Maximum direct anode voltage	10	kV
Maximum direct anode current	2	A
Maximum direct grid current	0.25	A
Maximum anode dissipation	5.0	kW
Maximum frequency for above ratings	50	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	8	kV
Grid bias	—480	V
Direct anode current	0.8	A
Peak R.F. grid voltage	700	V
*Direct grid current	20 mA approx.	
Output	2 kW approx.	

### **Class C Power Amplifier. Anode subject to modulation.**

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

Direct anode voltage	8	kV
Grid bias	—1,000	V
Direct anode current	0.8	A
Peak R.F. grid voltage	1,700	V
*Direct grid current	120 mA approx.	
Output	4.5 kW approx.	

### **Class C Power Amplifier or Oscillator—unmodulated.**

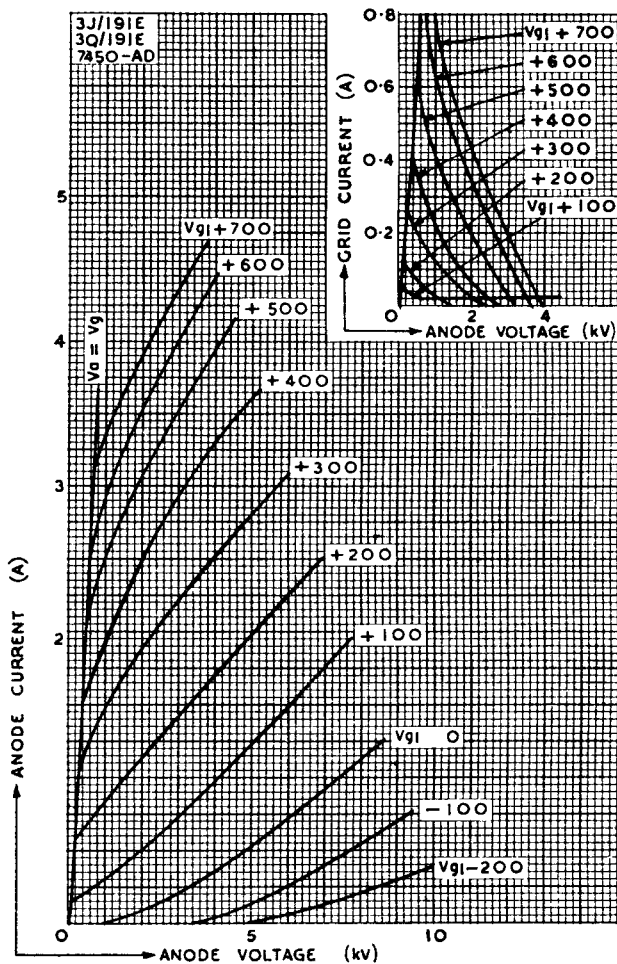
Direct anode voltage	10	kV
Grid bias	—800	V
Direct anode current	1	A
Peak R.F. grid voltage	1,500	V
*Direct grid current	120 mA approx.	
Output	7.3 kW approx.	

\* Subject to wide variation depending upon the impedance of the load circuit.



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