



Air-Blast-Cooled R.F. Triode 3J/191E

3J/191E

CATHODE.

Thoriated tungsten filament

Voltage	10	V
Nominal current	33	A
Peak emission	12	A

RATING.

Amplification factor	{ Measured at	26	
Impedance	{ $V_a 5kV$ $I_a 0.8A$ }	3,450	Ω

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

Air-Blast-Cooled R.F. Triode 3J/191E



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.

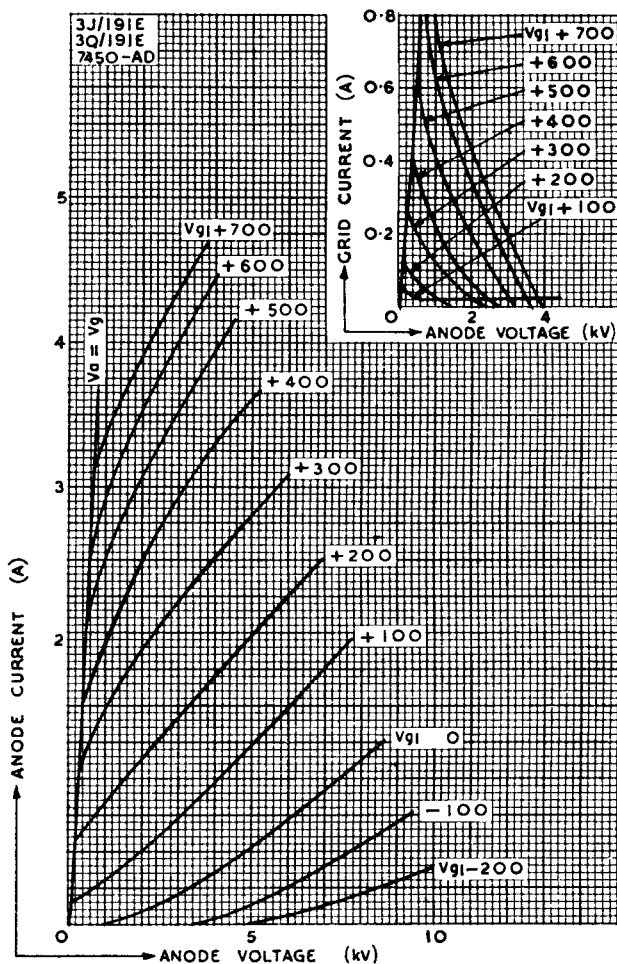
Direct anode voltage	10	kV
Grid bias	—800	V
Direct anode current	1	A
Peak R.F. grid voltage	1,500	V
*Direct grid current	120	mA approx.
Output	7.3	kW approx.

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



Air-Blast-Cooled R.F. Triode

3J/191E

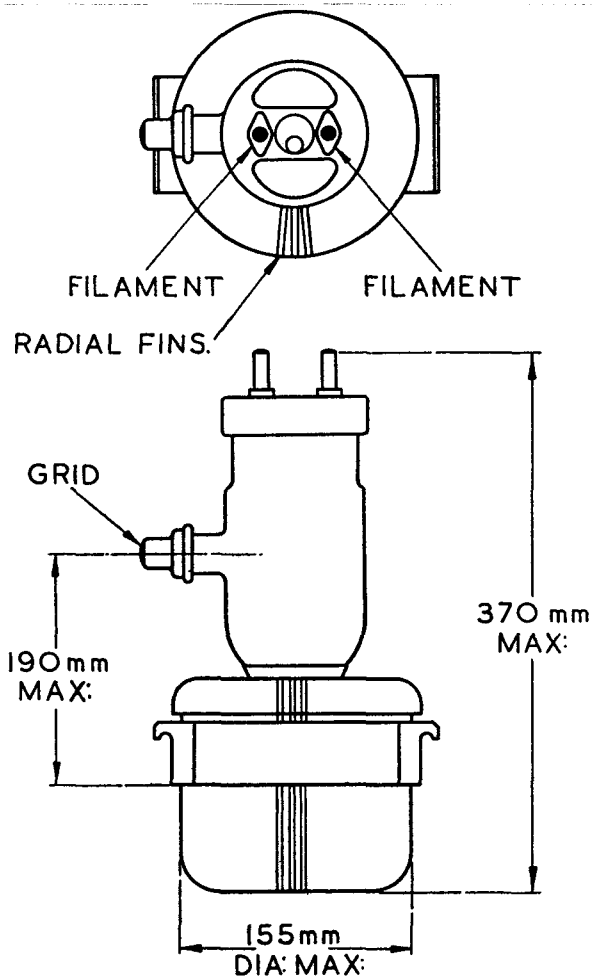


3J/191E

Air-Blast-Cooled R.F. Triode



3J/191E



May 1947

3J/191E—4