



Double-disc-seal U.H.F. Triode

3B/401J (CV127)

CATHODE.

Thoriated tungsten filament

Voltage	6.3	V
Nominal current	2.0	A
Peak emission	0.75	A

RATING.

Amplification factor	Measured at V_a 800V I_a 40 mA	6	
Impedance		2000	Ω

DIRECT INTER-ELECTRODE CAPACITIES.

Anode to grid	4	pF
Anode to filament	0.2	pF
Grid to filament	5	pF

DIMENSIONS.

Overall length	130	mm.
Maximum diameter	51.3	mm.
Base	Special, see sketch	
Net weight	92	g.

MAXIMUM RATINGS.

Maximum direct anode voltage	1,000	V
Maximum direct anode current	100	mA
Maximum anode dissipation when mounted in apparatus providing adequate heat radiation	40	W
Maximum direct grid current	15	mA

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TYPICAL OPERATION

Variable Wavelength Oscillator, 34cm. wavelength upwards.

The anode/grid and filament/grid oscillatory circuits consist of concentric lines ; a common tube forms the inner element of the anode/grid line and the outer element of the grid/filament line. The anode is joined via a condenser to the outer tube of the resonator to hold the D.C. from the grid. Change of wavelength is made by a sliding piston in the anode/grid line (See A in sketch). The filament/grid line must be tuned to match (See B in sketch).

The ends of the filament and the centre tap are all connected through 100 pF capacitors to the centre conductor, and leads are brought from the filament and centre tap through the centre conductor for D.C. connections.

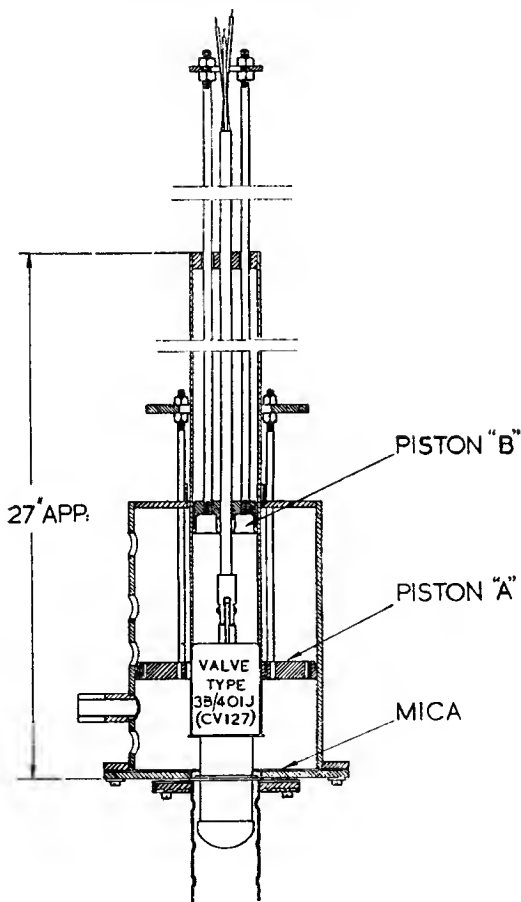
R.F. power may be extracted by a pick-up loop inserted into one of a series of holes in the outer element of the anode/grid line. A suitable tapping point is selected to match the output circuit.

Outputs of approximately 20 watts may be obtained at wavelengths of 50 cm. upward, falling to approximately 6 watts at 34 cm. To obtain the highest frequencies care must be taken to keep the anode/grid piston short.



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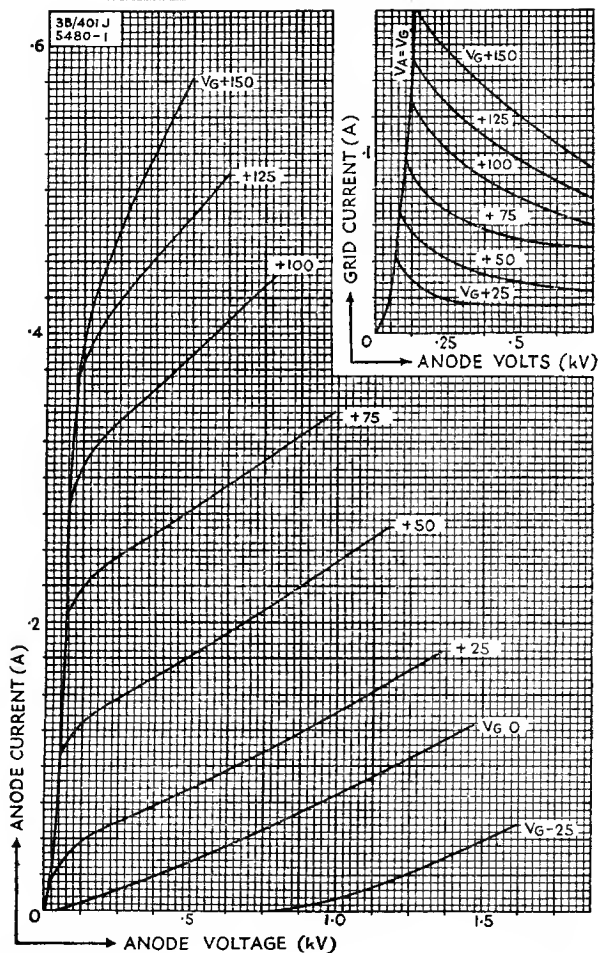
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VARIABLE FREQUENCY OSCILLATOR

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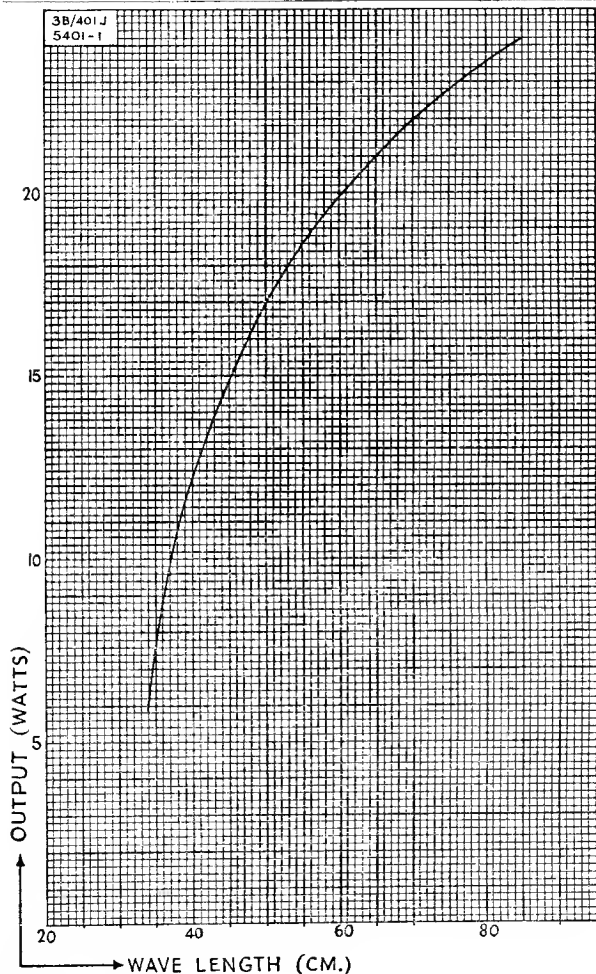


Tentative data
September, 1945



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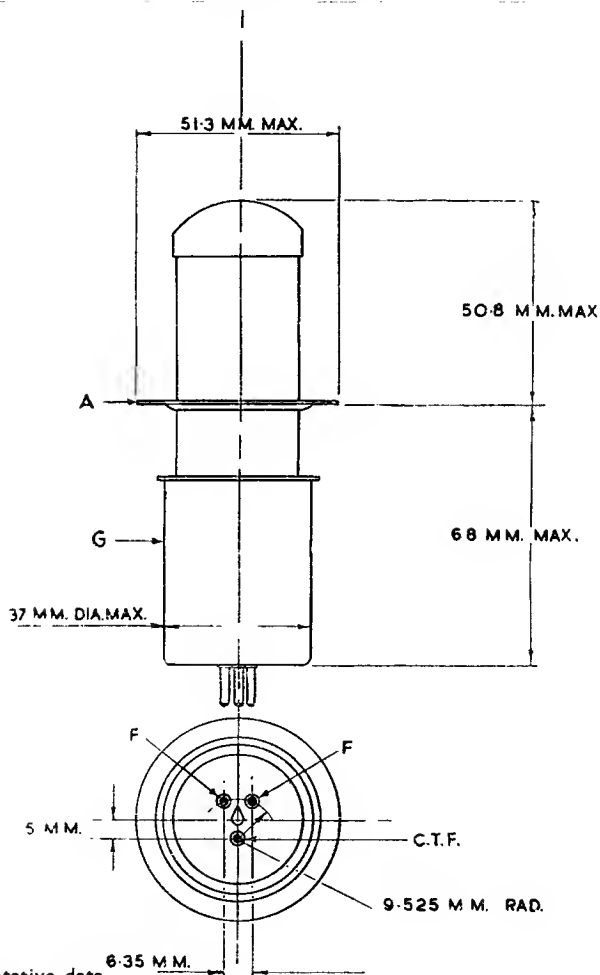


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