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ACORN PENTODE

AP4

Heater	Vf	=	4.0 V
	If	=	0.25 A
Capacities	Cagl	=	0.02 μμF
	*Cagl	=	0.011 μμF
	Cgl	=	3.0 μμF
	Ca	=	2.7 μμF

*With valve projecting through metal screen

Operating Conditions as R.F. Amplifier

Va	250	V
Vg2	100	V
Ia	2.0	mA
Ig2	0.7	mA
-Vg1	3.0	V
g (Ia = 2 mA)	5,000	
S (Ia = 2 mA)	1.4	mA/V
Ri (Ia = 2 mA)	3.5	MΩ

Operating Conditions as Anode Detector

Va	250	V
Vg2	100	V
-Vg1	6.0	V
Iao	0.1	mA
Ra	0.25	MΩ
Rk	20,000	Ω

Limiting Values

Va max.	250	V
Vg2 max	100	V
Ik max	4.0	mA
Vg1 max (Ig1 = 0.3 μA)	-1.3	V
Rg1 max	1.0	MΩ
Vfk max	50	V
Rfk max	20,000	Ω

Operating Notes.

The AP4 is an Acorn type specially designed for operation at ultra high frequencies up to 430 Mc.

The use of the AP4 at ultra high frequencies necessitates special precautions in the circuit design.

It is essential that the components, lay out and screening conform to the requirements of the frequency at which the valve is to operate.

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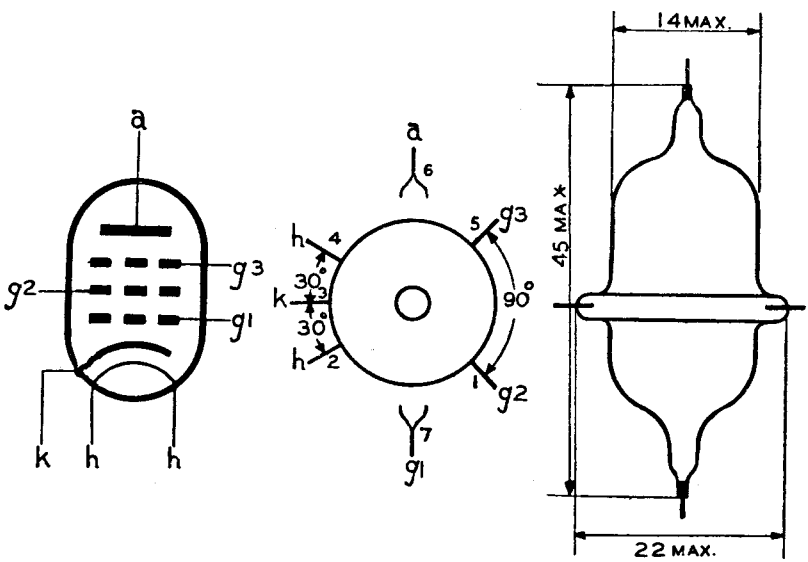
Earth return leads from the control grid, anode, suppressor and screen grid circuits must be kept as short as possible and earthed at a common point in the cathode circuit to avoid any radio frequency inter-action. By-pass condensers must be of good quality mica dielectric.

It will be found advisable to use R.F. chokes placed as near as possible to the by-pass condensers for decoupling purposes in place of the normal resistance arrangement.

The connections must not be soldered to the contacts on the valve.

Arrangement of electrodes and base connections



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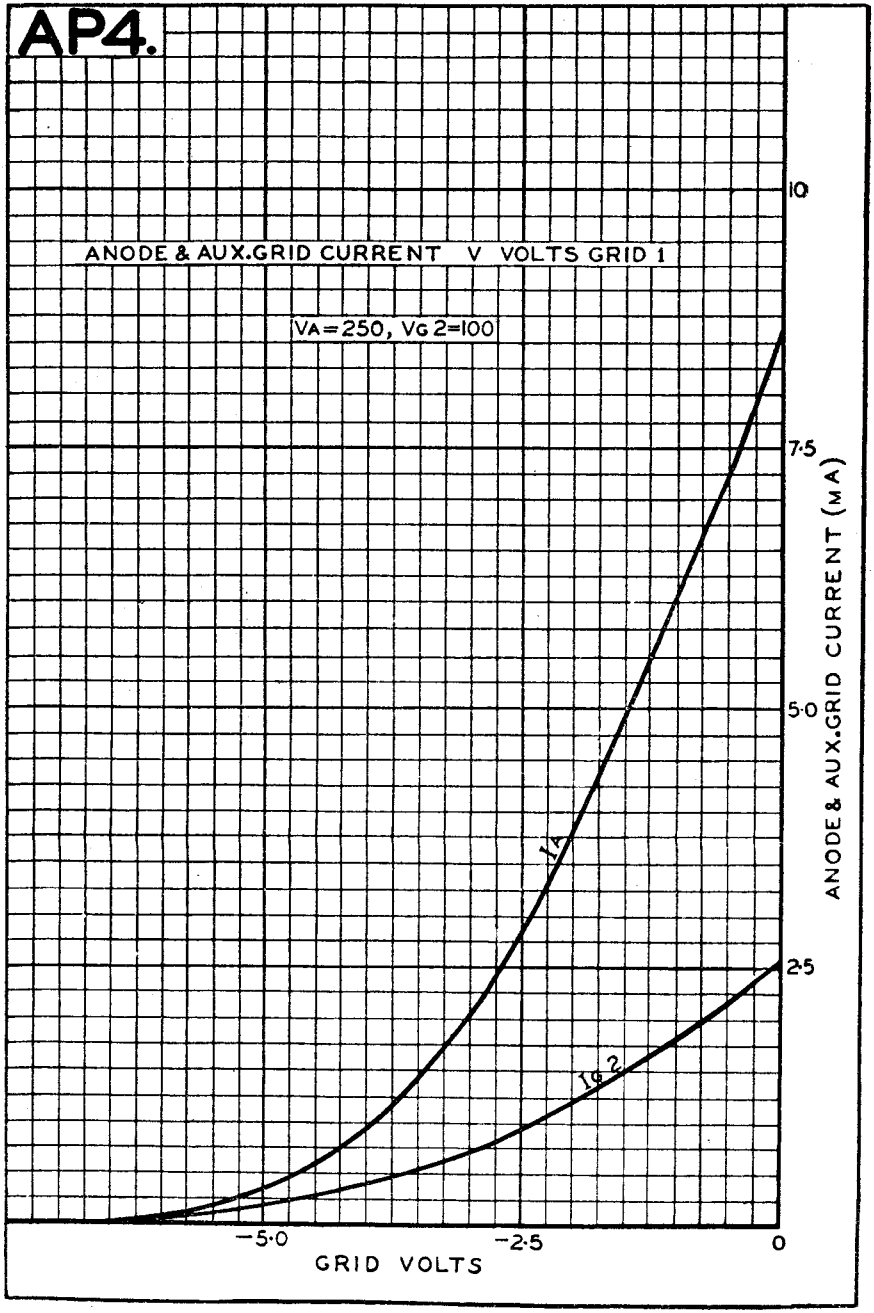

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