Mullard
ACORN TRIODE

AT4

Heater

Vf	=	4.0 V
If	=	0.25 A

Capacities

Cagl	=	1.4 μμF
Cak	=	0.6 μμF
Cgk	=	1.0 μμF

Operating Conditions

Va	200 V
Ia	4.5 mA
-Vg	6.0 V
g (Ia = 4.5 mA)	25
S (Ia = 4.5 mA)	2.0 mA/V
Ri (Ia = 4.5 mA)	12,500 Ω

Operating Conditions as Oscillator or H.F. Amplifier (Class C)

Va	200 V
Ia	8.0 mA
-Vg	35 V
Ig	2.0 mA
*Wo	0.5 W

*Approximate value at 60 Mc. This output can be maintained up to 300 Mc. but above this the output will decrease as the frequency is increased.

Operating Conditions as Detector

	Anode detector	Grid detector
Va	180	45 V
-Vg	7	0 V
Ia	0.2	- mA
Ra	0.25	- MΩ
Rk	50,000	- Ω
Rg	-	1 to 5 MΩ
Cg	-	250 μμF

Limiting Values

Va max	200 V
Wa max	1.1 W
Ik max	6.0 mA
Vgl max (Ig = 0.3 μA)	-1.3 V
Rg max	0.5 MΩ
Vfk max	50 V
Rfk max	20,000 Ω

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Operating Notes.

The AT4 is an Acorn type specially designed for operation at ultra high frequencies up to 430 Mc.

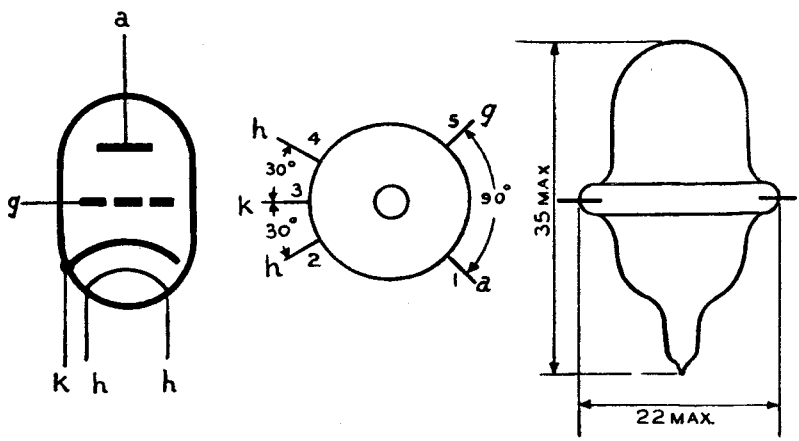
The use of the AT4 at ultra high frequencies necessitates special precautions in the circuit design.

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

By-pass condensers must be of good quality mica dielectric and where used for decoupling, should be located as near the valve terminals as possible.

All leads should be of the minimum possible length and all earthed points should be as close together as possible. The connections must not be soldered to the contacts on the valve.

Arrangement of electrodes and base connections



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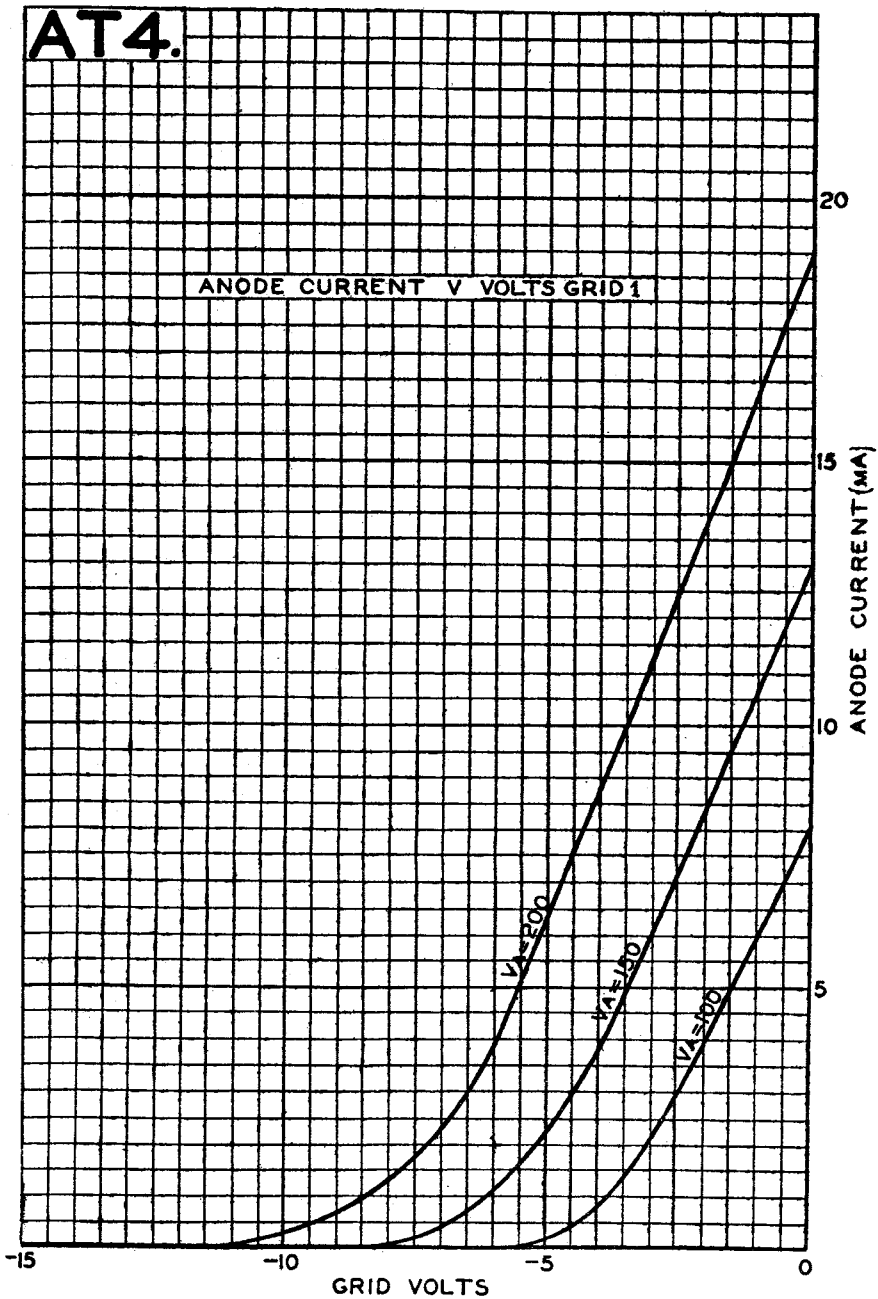

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