

FERRANTI

VARIABLE-MU R.F. PENTODE

A directly heated Variable Mu Pentode, designed for use as an I.F. Amplifier in Battery Operated Receivers. The low drain filament is suitable only for DC. operation either from a series or parallel supply.

PHYSICAL DETAILS.

Base	...	...	...	B7G—All Glass.
Max. Overall Length	...	...	...	54.5 mm. (2 $\frac{1}{8}$ in.).
Max. Seated Height	...	...	...	47.5 mm. (1 $\frac{3}{8}$ in.).
Max. Diameter	...	...	...	19.0 mm. ($\frac{3}{4}$ in.).
Mounting Position	...	...	...	Any.

BASE CONNECTIONS.

Pin 1—Filament (-), Suppressor Grid (g_3), and Screen.	Pin 4—Int. Connection. Pin 5—Filament (-). Suppressor Grid (g_3), and Screen.
Pin 2—Anode.	Pin 6—Control Grid (g_1).
Pin 3—Screen Grid (g_2).	Pin 7—Filament (+).

FILAMENT.

		Series.	Parallel.
Filament Voltage	...	1.3	1.4 volts.
Filament Current	...	24	25 mA.

RATINGS.

Max. H.T. Supply Voltage	...	110 volts.
Max. Anode Voltage	...	90 volts.
Max. Screen Voltage	...	90 volts.
Max. Anode Dissipation	...	0.25 watts.
Max. Screen Dissipation	...	0.1 watt.
Max. Cathode Current	...	2.2 mA.
Max. R_{g1-k}	...	3.0 M Ω
Max. V_{g1} ($I_{g1} = +0.3 \mu A$)	...	0 volts.

TYPICAL OPERATION (as I.F. Amplifier).

*Anode Voltage	...	64	85 volts.
Screen Feed Resistor	...	0	39 k Ω
Grid Bias Voltage	...	0	0 volts.
Screen Voltage	...	64	64 volts.
Anode Current	...	1.65	1.65 mA.]
Screen Current	...	0.55	0.55 mA.
Mutual Conductance	...	850	850 $\mu A/V$.
Anode Impedance	...	0.7	1.0 M Ω
Inner μ (μ_{g1-g2})	...	18	18
V_{g1} (for $g_m = 10 \mu A/V$)	...	-4.1	-5.5 volts.
Equiv. Noise Resistance	...	14	14 k Ω

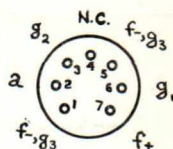
CAPACITANCES.

C_{in}	...	...	3.3 pF.
C_{out}	...	...	7.8 pF.
C_{a-g1}	...	...	<0.01 pF.

*Based on supply voltages of 67.5 volts, and 90 volts decreased by the negative bias for the output valve.

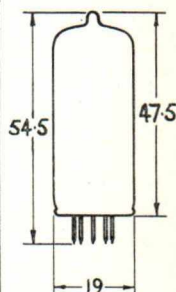
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Base
Connections

Underside View
of Base

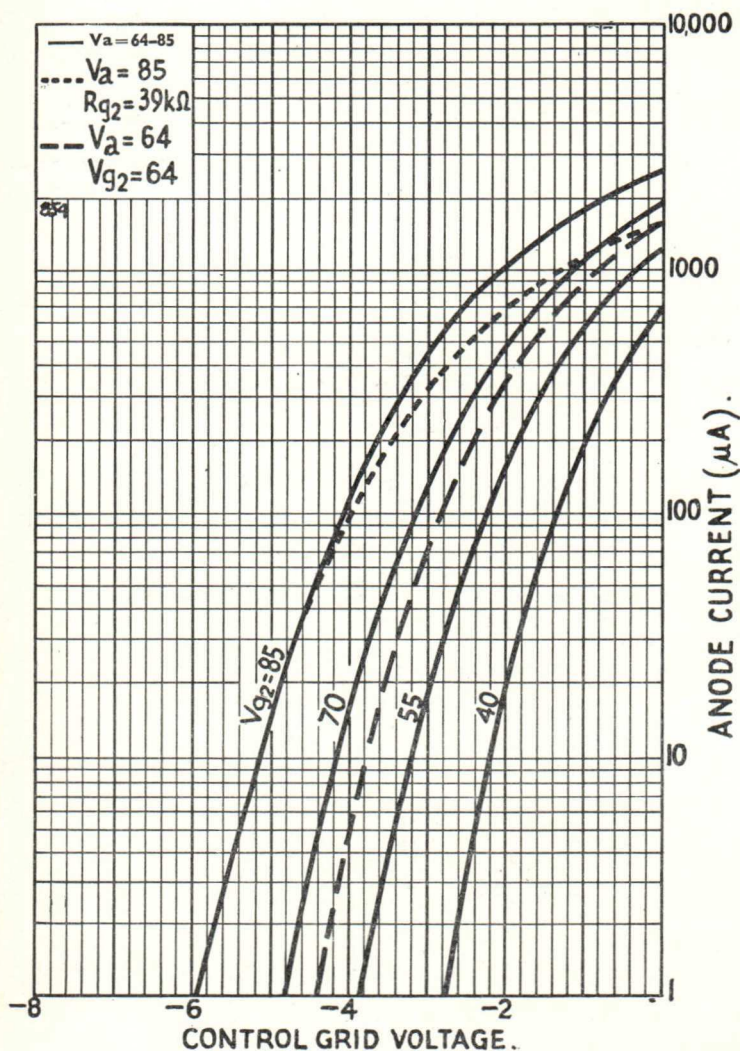


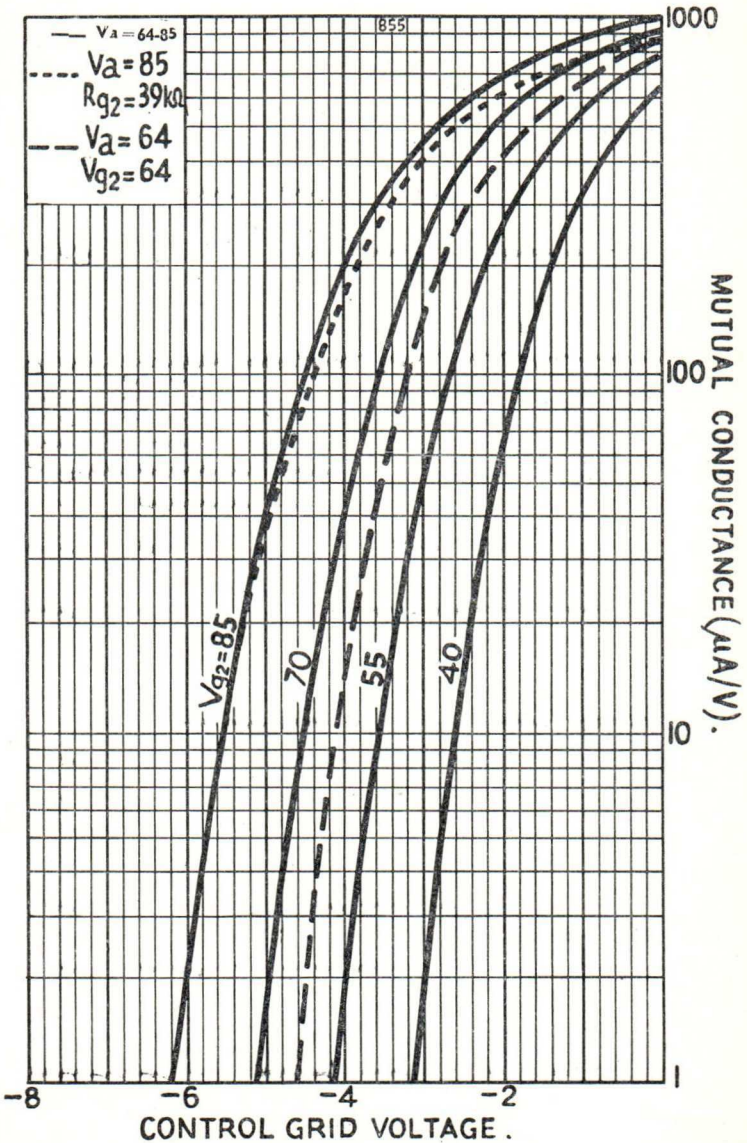
All dimensions
shown are in
millimetres (max.).



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