

FERRANTI

VARIABLE-MU R.F. PENTODE

A high slope R.F. Pentode designed for use in F.M./A.M. Receivers.

PHYSICAL DETAILS.

Base	...	...	B9A—All Glass.
Max. Overall Length	...	...	67.5 mm. ($2\frac{3}{4}$ in.).
Max. Seated Height	...	...	60.5 mm. ($2\frac{3}{8}$ in.).
Max. Diameter	...	...	22.2 mm. ($\frac{7}{8}$ in.).
Mounting Position	...	...	Any.

BASE CONNECTIONS.

Pin 1—Cathode.	Pin 5—Heater.
Pin 2—Control Grid (g_1)	Pin 6—Shield.
Pin 3—Cathode.	Pin 7—Anode.
Pin 4—Heater.	Pin 8—Screen Grid (g_2).
	Pin 9—Suppressor Grid (g_3).

HEATER.

Heater Voltage	...	...	6.3 volts.
Heater Current	...	...	0.3 amp.

RATINGS.

Max. H.T. Supply Voltage	...	550 volts.
Max. Anode Voltage	...	300 volts.
Max. Screen Voltage	...	250 volts.
Max. Anode Dissipation	...	2.5 watts.
Max. Screen Dissipation	...	0.65 watts.
Max. Control Grid Voltage ($ig_1 = +0.3 \mu A$)	...	-1.3 volts.
Max. Cathode Current	...	15 mA.
Max. V_{h-k}	...	150 volts.
Max. R_{g_1-k}	...	3.0 M Ω
Max. R_{h-k}	...	20 k Ω

CHARACTERISTICS.

$V_a = V_b$	...	250	250	250	volts.
V_{g_3}	...	0	0	0	volts.
R_{g_2}	...	80	*18	†22	k Ω
V_{g_2}	...	85	97	103	volts.
V_{g_1}	...	-1.8	-1.9	-2.1	volts.
I_a	...	8	10	10	mA.
I_{g_2}	...	2	2.4	2.6	mA.
g_m	...	5.7	6.0	6.0	mA/V.
r_a	...	500	500	500	k Ω
R_{eq}	...	1.5	1.5	1.5	k Ω
V_{g_1} for 100:1 reduction of g_m	...	-30	-33	-35	volts.

CAPACITANCES‡

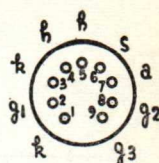
C_{in}	...	...	...	7.5 pF.
C_{out}	...	...	...	3.7 pF.
C_{a-g_1}	...	...	...	0.007 pF. (max.).
C_{g_1-h}	...	...	...	0.15 pF. (max.).

*Common screen resistor with ECH81 used as a frequency changer. Total current through resistor is 8.5 mA.

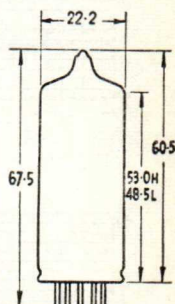
†Common screen resistor with ECH81 used as I.F. or R.F. Amplifier. Total current through resistor is 6.7 mA.

‡Measured without external shield.

EF85



Base Connections
Underside View of Base



Dimensions shown are in millimetres



EF85

