

FERRANTI

DOUBLE TRIODE

A double triode with separate cathodes, primarily designed for use as a cascode R.F. Amplifier in Television Receivers. Suitable for operation at frequencies up to 220 Mc/s.

PHYSICAL DETAILS.

Base	...	...	...	B9A—Noval.
Max. Overall Length	...	...	...	56 mm. ($2\frac{1}{2}$ in.).
Max. Seated Height	...	...	...	49 mm. ($1\frac{7}{8}$ in.).
Max. Diameter	...	...	...	22.2 mm. ($\frac{7}{8}$ in.).
Mounting Position	...	...	...	Any.

BASE CONNECTIONS.

Pin 1—Cathode Triode 2.	Pin 5—Heater.
Pin 2—Grid Triode 2, Shield.	Pin 6—Grid Triode 1.
Pin 3—Anode Triode 2.	Pin 7—Cathode Triode 1 (in).
Pin 4—Heater.	Pin 8—Cathode Triode 1 (out).
	Pin 9—Anode Triode 1.

The triode on Pins 6, 7, 8 and 9 should have grounded-cathode connection and that on pins 1, 2 and 3 should have grounded-grid connection.

HEATER.*

Heater Voltage	...	...	...	6.3 volts.
Heater Current	...	...	...	0.33 amp.

RATINGS.†

Max. Anode Supply Voltage	...	...	...	550 volts.
Max. Anode Voltage	...	...	...	180 volts.
Max. Anode Dissipation	...	...	...	2 watts.
Max. Cathode Current	...	...	...	22 mA.
Max. Neg. Grid Voltage	...	...	...	50 volts.
Max. $V_{h-k'}$	...	...	...	100 volts.
Max. $V_{h-k''}$ (heater negative)	...	...	...	200 volts.
Max. $R_{g-k'}$	...	...	...	1.5 M Ω .
Max. $R_{g-k''}$	...	...	...	0.5 M Ω .
Max. R_{h-k}	...	...	...	20 k Ω .

CHARACTERISTICS.‡

Anode Voltage	...	...	...	90 volts.
Grid Voltage	...	...	...	-1.5 volts.
Anode Current	...	...	...	12 mA.
Amplification Factor	...	...	...	24
Mutual Conductance	...	...	...	6 mA/V.
§Input Impedance	...	...	...	2 k Ω .

CAPACITANCES.§

$C_{g'-k'}$	...	...	...	2.1 pF.
$C_{a'-k'}$	...	...	...	0.45 pF.
$C_{g'-h}$	...	...	...	<0.25 pF.
$C_{a'-g'}$	...	...	...	1.2 pF.
$C_{a''-g''}$	...	...	...	2.3 pF.
$C_{a''-k''}$	...	...	...	0.16 pF.
$C_{k''-g''+h}$	...	...	...	4.7 pF.
$C_{a''-g''+h}$	...	...	...	2.5 pF.
$C_{g'-a'}$	...	...	...	<0.006 pF.
$C_{g'-a''}$	...	...	...	<0.035 pF.
$C_{a'-k'+h+g''}$	...	...	...	1.2 pF.
$C_{h-k''}$	...	...	...	2.7 pF.

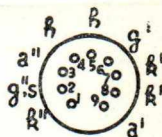
*Suitable for parallel operation only, a.c. or d.c.

†Each section, unless otherwise indicated.

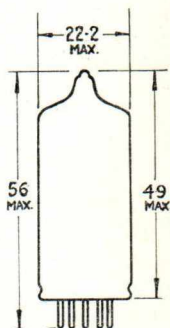
‡Measured without external shield.

§Measured at a frequency of 200 Mc/s. with cathode connections pins 7 and 8 strapped.

ECC84



Base Connections
Underside View of Base



All dimensions shown are in millimetres.



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