

FERRANTI
R.F. PENTODES

Indirectly heated pentodes designed for use in High-gain Amplifiers or Anode Bend Detectors in AC. or AC/DC. equipments.

PHYSICAL DETAILS.

	6J7G	6J7GT
Base ...	...	International Octal.
Top Cap ...	...	Skirted Miniature.
Max. Overall Length	114 mm. (4½ in.)	84 mm. (3⅝ in.).
Max. Seated Height	99 mm. (3⅞ in.)	70 mm. (2¾ in.).
Max. Diameter ...	40 mm. (1⅞ in.)	34 mm. (1⅜ in.).
Mounting Position	...	Any.

BASE CONNECTIONS.

Pin 1—Int. Shield (6J7G).	Pin 5—Suppressor Grid (g ₃).
Base Sleeve (6J7GT).	Pin 6—No Pin.
Pin 2—Heater.	Pin 7—Heater.
Pin 3—Anode.	Pin 8—Cathode.
Pin 4—Screen Grid (g ₂).	Top Cap—Control Grid (g ₁).

HEATER.

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

RATINGS.

	Pentode Connection	Triode Connection*
Max. Anode Voltage ...	300	250 volts.
Max. Screen Voltage ...	125	— volts.
Max. Anode Dissipation	0.75	1.75 watts.
Max. Screen Dissipation	0.1	— watt.
Max. Heater-Cathode Voltage	100	100 volts DC.
Max. Positive Grid Voltage	0	0 volts.
Max. R _{g-k} ...	1.0	1.0 MΩ

TYPICAL OPERATION.

Class A₁ Amplifier.

	Pentode Connection	Triode Connection*
Anode Voltage ...	100	250 volts.
Screen Voltage ...	100	—
Suppressor	Connect to Cathode	—
Grid Voltage ...	-3	-8 volts.
Anode Current ...	2.0	6.5 mA.
Screen Current ...	0.5	— mA.
Mutual Conductance	1.1	1.9 mA/V.
Anode Impedance	1.0	0.1 MΩ
Grid Volts for Cut off	-7	— volts.
Amplification Factor	—	20

Anode Bend Detector†

Anode and Screen Supply Voltage	100	250 volts.
Anode Load ...	0.25	0.5 MΩ
Screen Feed Resistor ...	2.5	4.7 MΩ
Cathode Bias Resistor ...	0.01	0.01 MΩ
Cathode Current (Zero Signal)	0.19	0.45 mA.
‡R.F. Signal (R.M.S.) ...	1.6	1.4 volts.
‡Peak Output Voltage ...	17	17 volts.
Grid Resistor of following valve	0.5	0.25 MΩ

Resistance Coupled Amplifier.

	Pentode Connection†	Triode Connection*
H.T. Supply Voltage ...	180	300 volts.
Anode Load ...	0.25	0.1 MΩ
Screen Feed Resistor ...	1.2	— MΩ
Cathode Bias Resistor ...	1600	6000 ohms.
Peak Output Voltage ...	60	88 volts.
Voltage Gain ...	118	13
Grid Resistor of following valve	0.5	0.5 MΩ

CAPACITANCES.

	6J7G	6J7GT
PENTODE CONNECTION§		
C _{a-g} ...	0.007	0.005 pF. max.
C _{in} ...	4.6	4.6 pF.
C _{out} ...	12.0	12.0 pF.
TRIODE CONNECTION**		
C _{a-g} ...	1.8	1.8 pF.
C _{in} ...	2.6	2.6 pF.
C _{out} ...	17.0	17.0 pF.

*Screen Grid (g₂) and suppressor grid (g₃) connected to anode.

†Suppressor Grid (g₃) connected to cathode.

‡For 20% modulated R.F. Input.

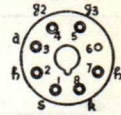
§With external shield connected to cathode.

**Without external shield.

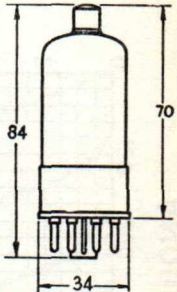
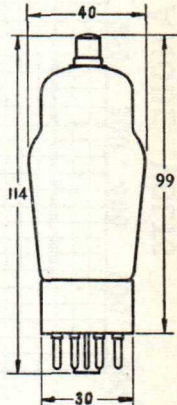
6J7G

6J7GT

T.C. 



Base
Connections
Underside View
of Base



All dimensions
shown are in
millimetres
(max.).

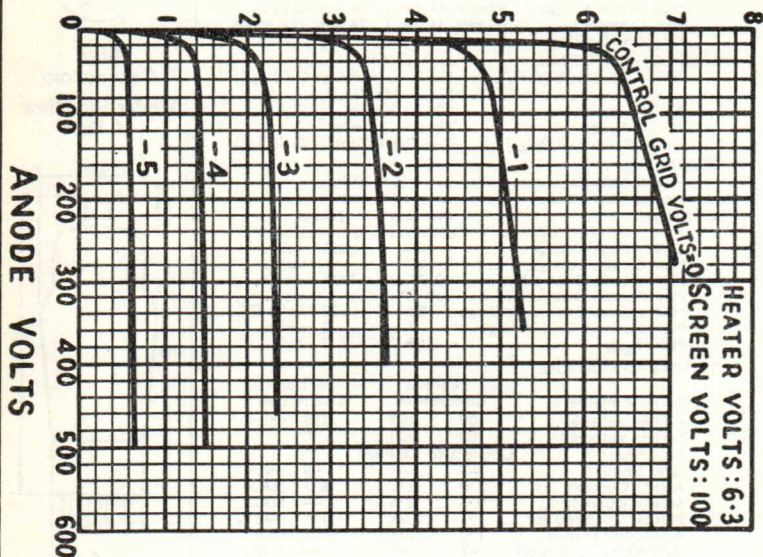


6J7G

6J7GT



ANODE CURRENT (mA)



ANODE CURRENT (mA)

