



R.F. AMPLIFIER PENTODE

A miniature high mutual conductance R.F. Pentode, designed for use in high frequency wide band applications. Can be used at frequencies up to 400 Mc/s. Two cathode connections are provided, allowing better isolation of input and output circuits.

PHYSICAL DETAILS.

Base	...	...	...	B7G.
Max. Overall Length	...	...	...	45 mm. (1 $\frac{1}{2}$ in.).
Max. Seated Height	...	...	...	38 mm. (1 $\frac{1}{2}$ in.).
Max. Diameter	...	...	...	19 mm. ($\frac{3}{4}$ in.).
Mounting Position	...	...	...	Any.

BASE CONNECTIONS.

Pin 1—Control Grid	Pin 4—Heater.
Pin 2—Cathode.	Pin 5—Anode.
Pin 3—Heater.	Pin 6—Screen Grid.
Pin 7—Cathode, Suppressor grid and shield.	

HEATER.

Heater Voltage	...	...	...	6.3 volts.
Heater Current	...	...	...	0.175 amp.

RATINGS.

Max. Anode Voltage	...	...	...	180 volts.
Max. Screen Grid Voltage	...	...	...	140 volts.
Max. Anode Dissipation	...	...	...	1.7 watt.
Max. Screen Grid Dissipation	...	...	...	0.5 watt.
Max. Positive Grid Voltage	...	...	...	0 volts.
Max. Cathode Current	...	...	...	18 mA.
Max. V_{h-k} (Htr. neg. or pos.)	...	...	...	100 volts.

TYPICAL OPERATION.

Anode Voltage	...	120	150	180	volts.
Screen Grid Voltage	...	120	140	120	volts.
*Auto bias resistor	...	200	330	200	ohms.
Anode Impedance (approx)	...	0.34	0.45	0.6	M Ω
Mutual Conductance	...	5.0	4.3	5.1	mA/V.
Anode Current	...	7.5	7.0	7.7	mA.
Screen Grid Current	...	2.5	2.2	2.4	mA.
†Input Impedance	...	25	25	25	k Ω

CAPACITANCES

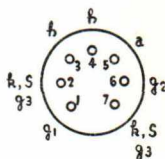
	(without external shield.)	(with external shield.)
C_{a-g}	... 0.03 ...	... 0.02 pF. (Max.).
C_{in}	... 4.0 ...	... 4.0 pF.
C_{out}	... 2.1 ...	... 2.8 pF.

*Fixed bias operation is not recommended.

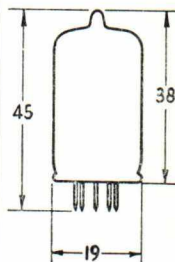
†At 50 c/s.

DP6I

6AK5



Base
Connections
Underside View
of Base



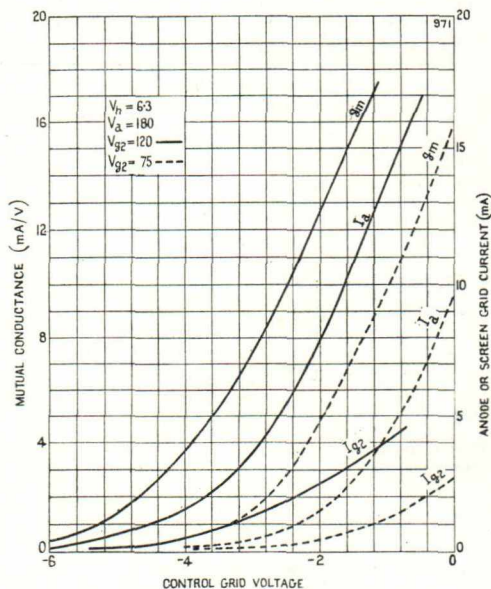
All dimensions
shown are in
millimetres
(Max.).



DP61

6AK5

TYPICAL CHARACTERISTICS



Typical I_a/V_a characteristics at $V_{g2} = 120$

