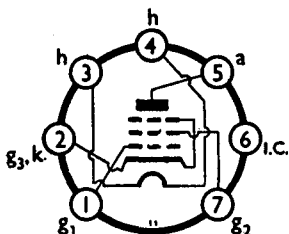




MINIATURE
OUTPUT PENTODE
6.3V INDIRECTLY HEATED

N77
SEPTEMBER, 1953

BASE CONNECTIONS AND VALVE DIMENSIONS



View from underside
of base.

Base : B7G
Bulb : Tubular.

Overall length : 49—55 mm.
Seated length : 43—49 mm.
Max. diameter : 19 mm.

RATING

Pentode connection

V_h	6.3		V
I_h	0.2		A
V_{h-k} (pk)	150	max.	V
V_a	250	max.	V
V_{g2}	250	max.	V
P_a	4	max.	W
P_{g2}	0.6	max.	W
r_a	130	{	k Ω
g_m			mA/V

at $V_a = V_{g2} = 250$ $I_a = 16$ mA

Triode connection

V_a g_2	250	max.	V
P_a g_2	4.6	max.	W
μ	11.5	{	k Ω
r_a			
g_m	3		mA/V

at $V_a = V_{g2} = 250$ $I_a = 16$ mA

CAPACITANCES (of cold unscreened valve)

c_{a-all} 4.2 pF c_{g1-all} 3.2 pF $c_{a-g1} < 0.5$ pF

TYPICAL OPERATION

Single valve. Class A. Pentode connection.

V_a	250	V
V_{g2}	250	V
I_a	16	mA
I_{g2}	2.4	mA
R_k	680	Ω
v_{in} (pk)	7.5	V
R_L	16	k Ω
P_{out}	1.4	W
D	10	%

Push-pull. Class AB₁. Self bias.

Data per pair unless otherwise stated.

V _a	250		V
V _{g2}	250		V
V _{g1} (0)	15	approx.	V
I _a (0)	22		mA
I _a (max. sig.)	25.6		mA
I _{g2} (0)	3.2		mA
I _{g2} (max. sig.)	8.2		mA
R _k	600		Ω
v _{in} (pk) (g ₁ -g ₁)	34		V
R _L (a—a)	24		kΩ
P _{out}	4		W
D	3.2		%

Push-pull. Class AB₁. Fixed bias.

Data per pair unless otherwise stated.

V _a	250		V
V _{g2}	250		V
V _{g1}	—19		V
I _a (0)	10		mA
I _a (max. sig.)	32		mA
I _{g2} (0)	1.3		mA
I _{g2} (max. sig.)	9		mA
v _{in} (pk) (g ₁ -g ₁)	37		V
R _L	20		kΩ
P _{out}	4.8		W
D	3.3		%

GRID RESISTOR

The maximum permissible D.C. resistance between control grid and cathode is limited to 470 kΩ ± 20% with auto-bias, and 100 kΩ ± 20% with fixed bias operation.

MOUNTING

Any position.

RETAINING

A retaining device should be used.

SCREENING

No internal or external screening is fitted to the valve.

VENTILATION

Free air circulation around the bulb should be allowed.

MICROPHONY

Although of a very low order, equipment should be designed to minimise microphony.

