

FERRANTI

DOUBLE DIODE PENTODE

Type 6B8G is an indirectly heated double diode pentode designed for use as a detector, A.V.C., and A.F. amplifier in radio receivers.

PHYSICAL DETAILS.

Base	...	...	International Octal.
Top Cap	...	...	Skirted Miniature (CTI)
Max. Overall Length	...	...	114 mm. ($4\frac{1}{2}$ in.).
Max. Seated Height	...	...	99 mm. ($3\frac{7}{8}$ in.).
Max. Diameter (Bulb)	...	...	40 mm. ($1\frac{5}{8}$ in.).
Mounting Position	...	...	Any.

BASE CONNECTIONS.

Pin 1—No Connection.	Pin 5—Diode Anode 1.
Pin 2—Heater.	Pin 6—Screen Grid (g_2).
Pin 3—Pentode Anode.	Pin 7—Heater.
Pin 4—Diode Anode 2.	Pin 8—Cathode,
	Suppressor Grid (g_3).
Top Cap—Control Grid (g_1).	

HEATER.

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

RATINGS.

Max. Anode Voltage	...	...	300 volts.
Max. Screen Voltage	...	...	125 volts.
Max. Screen Supply Voltage	...	...	300 volts.
Max. Anode Dissipation	...	...	2.25 watts.
Max. Heater-Cathode Voltage	...	...	100 volts DC.
Max. Screen Dissipation	...	...	0.3 watt.
Max. Diode Current (each diode)	...	...	1.0 mA.
Min. Grid Voltage	...	...	0 volts.

TYPICAL OPERATION.

PENTODE SECTION.

Class A₁ Amplifier.

Anode Voltage	...	100	250	250	volts.
Screen Voltage	...	100	100	125	volts.
Grid Voltage	...	-3	-3	-3	volts.
Anode Current	...	5.8	6.0	2.0	mA.
Screen Current	...	1.7	1.5	2.3	mA.
Grid Volts for Cut off	...	-17	-17	-21	volts.
Mutual Conductance	...	0.95	1.0	1.12	mA/V.
Anode Impedance	...	0.3	0.8	0.6	MΩ

Resistance Coupled Amplifier.

Supply Voltage	...	90	300	volts.
Anode Load Resistor	...	0.25	0.25	MΩ
Screen Feed Resistor	...	1.2	1.5	MΩ
Auto Bias Resistor	...	3500	1800	ohms.
Peak Output Voltage	...	33	95	volts.
Stage Gain	...	55	100	
Grid Resistor for following valve	...	0.5	1.0	MΩ

DIODE SECTION.

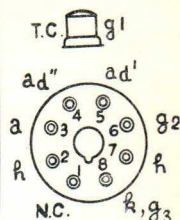
Refer to curves for Type 6Q7G.

CAPACITANCES.*

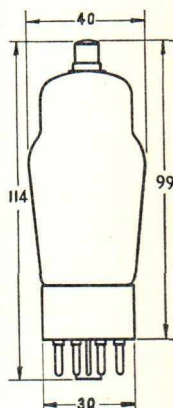
C _{in}	...	...	...	3.6
C _{out}	...	...	...	9.5
C _{a-g}	...	...	...	0.01 max.

*Pentode Section.

6B8G



Base
Connections
Underside View
of Base



All Dimensions
shown are in
millimetres
(max.).



6B8G



AVERAGE CHARACTERISTICS

PENTODE SECTION

