

FERRANTI

DOUBLE DIODE PENTODE

Type 12C8GT is an indirectly heated double diode pentode designed for use as detector, A.V.C. and L.F. amplifier in radio receivers.

PHYSICAL DETAILS.

Base	...	...	International Octal.
Top Cap	...	...	Skirted Miniature.
Max. Overall Length	...	...	90 mm. (3 $\frac{3}{8}$ in.).
Max. Seated Height	...	...	76 mm. (3 in.).
Max. Diameter (Base)	...	...	34 mm. (1 $\frac{3}{8}$ in.).
Mounting Position	...	...	Any.

BASE CONNECTION.

Pin 1—Base Sleeve.	Pin 5—Diode Anode 1.
Pin 2—Heater.	Pin 6—Screen Grid.
Pin 3—Triode Anode.	Pin 7—Heater.
Pin 4—Diode Anode 2.	Pin 8—Cathode,
	Suppressor Grid.
	Top Cap—Control Grid.

HEATER.

Heater Current	...	...	0.15 amp.
Heater Voltage	...	...	12.6 volts.

RATINGS.

Max. Anode Voltage	...	...	300 volts.
Max. Screen Voltage	...	...	125 volts.
Max. Anode Dissipation	...	...	2.25 watts.
Max. Heater-Cathode voltage	...	...	100 volts.
Max. Screen Dissipation	...	...	0.3 watts.
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	9.0	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/volt.
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.

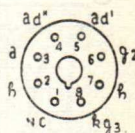
Refer to curves for Type 6Q7G.

CAPACITANCES.

C _{in}	...	...	...	4.5 pF.
C _{out}	...	...	...	10.0 pF.
C _{a-g}	...	...	...	0.005 pF. (max.).

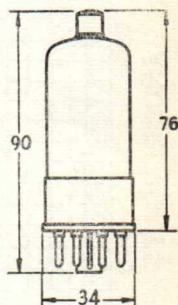
12C8GT

T.C. 91



Base Connections

Underside View of Base



All dimensions shown are in millimetres (max.).



12C8GT

