

6J8-GA

TRIODE HEPTODE CONVERTER

GENERAL DATA

Electrical:

Heater, for Unipotential Cathode:

Voltage	6.3	a.c. or d.c. volts
Current	0.45	amp.

Direct Interelectrode Capacitances (With Standard Shield)

Heptode Grid No. 1 to Heptode Plate	0.01 max.	uuF
Heptode Grid No. 1 to Triode Grid & Heptode Grid No. 3	0.13	uuF
Heptode Grid No. 1 to Triode Plate	0.015	uuF
Triode Grid & Heptode Grid No. 3 to Triode Plate	2.2	uuF
R.F. Input (Heptode Grid No. 1 to All Other Electrodes)	4.4	uuF
Osc. Output (Triode Plate to All Other Electrodes)	5.5	uuF
Osc. Input (Triode Grid & Heptode Grid No. 3 to All Other Electrodes)	11.7	uuF
Mixer Output (Heptode Plate to All Other Electrodes)	8.8	uuF

Mechanical:

Mounting Position	Any
Maximum Overall Length	4-15/32"
Maximum Seated Height	3-29/32"
Maximum Diameter	1- 9/16"
Eulb	ST-12
Cap	Skirted Miniature
Base	Small Shell Octal 8-Pin
Basing Designation for BOTTOM VIEW	G8H

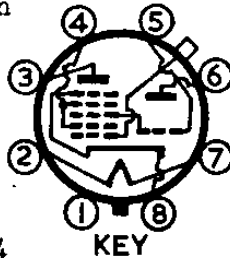
Pin 1 - No Connection

Pin 2 - Heater

Pin 3 - Heptode Plate

Pin 4 - Heptode Grids
No. 2 & No. 4

Pin 5 - Heptode Grid
No. 3 & Triode Grid



Pin 6 - Triode

Plate

Pin 7 - Heater

Pin 8 - Cathode

Cap - Heptode

Grid No. 1

CONVERTER

Maximum Ratings, Design-Centre Values:

Heptode Plate Voltage	300 max. volts
Heptode Screen (Grids No. 2 & No. 4) Voltage	100 max. volts
Heptode Screen Supply Voltage	300 max. volts
Heptode Control-Grid (Grid No. 1) Voltage	0 min. volts
Triode Plate Supply Voltage	250 max. volts
Heptode Plate Dissipation	0.9 max. watt
Heptode Screen Dissipation	0.4 max. watt
Triode Plate Dissipation	0.8 max. watt
Cathode Current	14.0 mA

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TRIODE HEPTODE CONVERTER

Typical Operation:

Heptode Plate Voltage	100	250	volts
Heptode Screen Voltage	100	100	volts
Heptode Control-Grid Voltage	-3	-3	volts Δ
Triode Plate Voltage	100	250	volts
Triode Grid Resistor	50000	50000	ohms
Heptode Plate Resistance	0.9	4.0	megohms
Conversion Transconductance	250	290	umhos
Heptode Control Grid Bias for Conver. Transcond. = 2 umhos	-20	-20	volts
Heptode Plate Current	1.4	1.3	mA
Heptode Screen Current	3.0	2.9	mA
Triode Plate Current	3.0	5.0	mA
Triode Grid & Heptode Grid No. 3 Current	0.3	0.4	mA

TRIODE SECTION

Plate Voltage	100	volts
Grid Voltage	0	volts
Amplification Factor	17	
Plate Resistance	10600	ohms
Transconductance	1600	umhos
Plate Current	7	mA

Δ Applied through a 20000 ohm dropping resistor.

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OPERATION CHARACTERISTICS

A.W.V. 130

RADIOTRON 6J8-G

- $E_F = 0.3 \text{ V.}$
- $E_P = 250 \text{ V.}$
- $E_{G1} = -3 \text{ V.}$
- $E_{G2,4} = 100 \text{ V.}$

OSC. PLATE FED FROM +250 V. THROUGH
A 20,000 Ω RESISTOR.

OSCILLATOR GRID RESISTOR = 50,000 Ω

