

May 30th 1939

6 E 8 GTRIODE - HEXODE CONVERTER

Heater voltage (A.C. or D.C.).....	6,3 v
Heater current.....	0,3 a
Direct interelectrode capacitances (approx.)	
Hexode grid n° 1 to hexode plate.....	0,003 uuf
Hexode grid n° 1 to triode plate.....	0,05 uuf
Hexode grid n° 1 to triode grid.....	0,03 uuf
Triode grid to triode plate.....	1,4 uuf
Triode grid and hexode grid n° 3 to hexode plate.....	1 uuf
Hexode grid n° 1 to all other electrodes = R.F. Input....	5,2 uuf
Triode plate to all other electrodes (except triode grid and hexode grid n° 3) = Osc. Output	4,5 uuf
Triode grid and hexode grid n° 3 to all other electrodes (except triode plate) = Osc. Input.....	9,0 uuf
Hexode plate to all other electrodes = Mixer Output.....	10,5 uuf

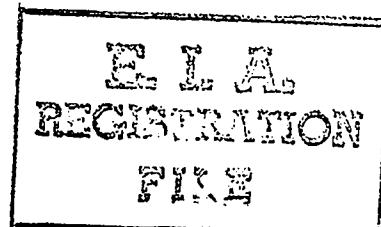
Converter Service

Maximum hexode plate voltage	250 v
" hexode screen (grids n° 2 & 4) voltage.....	100 v
Minimum hexode control-grid voltage.....	-2 v
Maximum triode plate voltage.....	200 v
" total cathode current.....	15 mA

Typical Operation

Heater voltage.....	6,3	6,3	6,3 v
Hexode plate voltage..	100	100	250 v
Hexode screen voltage.....	50	60	100 v
Hexode control-grid voltage.....	-1,25	-1,5	-2
Triode plate voltage.....	100	100	150 v
Triode grid resistor.....	50,000 ohms	50,000	50,000
Hexode plate resistance (approx.)	1,25 meg.	750,000	1,25
Conversion transconductance.....	350	450	650 mic
Hexode control grid bias (approx.) for conversion transconductance = 2 microm.	-12	-15	-22 v
Hexode plate current	0,9	1,25	3 mA
Hexode screen current.....	1,6	2,25	3
Triode plate current.....	3,2	3,2	5
Triode grid current.....	0,2	0,2	0,2
Ressistance cathodique de polarisation ..	220 ohms	220	190

The transconductance of the oscillator portion (not oscillating) of the 6 E 8 G is approximately 2,800 micromhos when the triode plate voltage is 150 volts, and the triode grid voltage is 0 volt.



RADIO MANUFACTURERS ASSOCIATION



SUITE 701-4 AMERICAN BUILDING
1317 F STREET, N.W.
WASHINGTON, D.C.

On application of
J.Visseaux,
Lyon, France

Registration No. 188A

R.M.A. DATA BUREAU

90 West Street

New York, N.Y. the type of vacuum tube defined by the ratings and characteristics given below has been registered under the tube type designation,
6ES (G)

Triode-Hexode Converter

Heater Voltage (A.C. or D.C.)	6.3 volts
Heater Current	0.5 ampere

Direct Interelectrode Capacitances (Approx.):

Hexode Grid No.1 to Hexode Plate	≤ 0.003 uuf
Hexode Grid No.1 to Triode Plate	≤ 0.05 uuf
Hexode Grid No.1 to Triode Grid	≤ 0.3 uuf
Triode Grid to Triode Plate	1.4 uuf
Triode Grid and Hexode Grid No.3 to Hexode Plate	1 uuf
Hexode Grid No.1 to All Other Electrodes = R-F Input	5.2 uuf
Triode Plate to All Other Electrodes (except Triode Grid and Hexode Grid No.3) = Osc. Output	4.5 uuf
Triode Grid and Hexode Grid No.3 to All Other Electrodes (except Triode Plate) = Osc. Input	9.0 uuf
Hexode Plate to All Other Electrodes = Mixer Output	10.5 uuf

Converter Service

Maximum Hexode Plate Voltage	250 volts
Maximum Hexode Screen (Grids No.2 & 4) Voltage	100 volts
Minimum Hexode Control-Grid (Grid No.1) Voltage	- 2 volt
Maximum Triode Plate Voltage	200 volts
Maximum Total Cathode Current	15 milliamperes

Typical Operation:

Heater Voltage	6.3	6.3 volts
Hexode Plate Voltage	100	250 volts
Hexode Screen Voltage	70	100 volts
Hexode Control-Grid Voltage	-1.5	- 2
Triode Plate Voltage	100	150 volts
Triode Grid Resistor	50,000	50,000 ohms
Hexode Plate Resistance (Approx.)	0.75	1.25 megohms
Conversion Transconductance	450	650 micromhos
Hexode Control-Grid Bias (Approx.) for Conversion Transconductance = 2 micromhos	-15	-22 volts
Hexode Plate Current	1.25	3 milliamperes
Hexode Screen Current	2.25	3 milliamperes
Triode Plate Current	3.2	5.0 milliamperes
Triode Grid Current	0.2	0.2 milliamperes
Cathode Bias Resistor	220	190 ohms

The transconductance of the oscillator section when not oscillating and with a triode plate voltage of 150 volts and a triode grid voltage of 0 volts is 2800 umhos.

St-12 Bulb
Small Octal Base

Basing Designation

80

