



ELECTRONIC TUBE REFERENCE

6E8G

Voltage - Radio Detector Converter electronic tube

CONSOLIDATED TECHNICAL DATA

2 SECTIONS

CONSTRUCTION

HEXODE-TRIODE

J. Visseaux 6E8G triode-hexode frequency converter combining a triode local oscillator with a hexode RF mixer for superheterodyne receivers. Uses a 6.3 V, 0.3 A heater and octal base.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	8
NOMINAL HEATER	6.3 V / 300 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Dissimilar

SECTION RATINGS

SECTION1 Triode

MAXIMUM PLATE VOLTAGE	200 V
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J. Visseaux 6E8G triode-hexode superheterodyne frequency converter (RMA release #188, June 1939), triode local-oscillator physical section with shared heater 6.3 V 0.3 A. Manufacturer triode plate maximum 200 V, typical triode plate 100 V or 150 V, grid resistor 50 kΩ, triode current ~3.2 or 5 mA depending on converter operating point. Manufacturer says oscillator portion NOT OSCILLATING gm approximately 2800 μmhos at triode plate 150 V and grid 0 V; not promoted as general converter intrinsic gm because condition-specific. Triode grid-plate capacitance 1.4 pF, oscillator-output capacitance 4.5 pF and cross-coupling capacitances. Other physical section is hexode mixer.

SECTION2 Hexode	
PLATE RESISTANCE	1250000 Ω
MAXIMUM PLATE VOLTAGE	250 V
MAXIMUM SCREEN VOLTAGE	100 V
<i>J. Visseaux 6E8G hexode mixer physical section of triode-hexode frequency converter (RMA 1939). Manufacturer maximum hexode plate voltage 250 V, screen grids 2 and 4 maximum 100 V, total tube cathode current maximum 15 mA (shared across triode and hexode, not an independent per-section unlimited current). Typical converter at hexode plate 100 V, screen 70 V, control grid -1.5 V: mixer plate resistance $\sim 0.75\text{ M}\Omega$, conversion transconductance $\sim 450\text{ }\mu\text{mhos}$, plate current 1.25 mA, screen 2.25 mA. At plate 250 V/screen 100 V/control grid -2 V: plate resistance $\sim 1.25\text{ M}\Omega$ (promoted as operating-point-dependent 1,250,000 Ω), conversion transconductance $\sim 650\text{ }\mu\text{mhos}$, plate current $\sim 3\text{ mA}$. Conversion gm is NOT intrinsic static gm and remains NULL. Published RF input 5.2 pF, mixer output 10.5 pF, cross-coupling and oscillator-related capacitances. Triode oscillator separate physical section.</i>	



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

9999 Mixed G 1000

Published test conditions and operating points. Values on this page are preserved as reported by this source.

9999 MIXED G 1000

Section 1 · Triode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	100 V	—

9999 MIXED G 1000

Section 2 · Hexode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	100 V	—

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