



ELECTRONIC TUBE REFERENCE

6K8G

Voltage - Triode (with diode, heptode or hexode) electronic tube

CONSOLIDATED TECHNICAL
DATA

2 SECTIONS
CONSTRUCTION
HEPTODE-TRIODE

Glass-envelope triode-heptode converter combining local-oscillator and mixer functions for superheterodyne receivers. The triode supplies oscillation while the heptode provides frequency conversion and useful output isolation.

GENERAL CHARACTERISTICS

BASE DESIGNATION	8KV	BASE PINS	8
NOMINAL HEATER	6.3 V / 300 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Common cathode	SECTION CONSTRUCTION	Dissimilar

SECTION RATINGS

SECTION1 Triode	
TRANSCONDUCTANCE	0.003 S
MAXIMUM PLATE VOLTAGE	125 V
MAXIMUM PLATE DISSIPATION	0.75 W
<i>Promoted from printed maximum-rating/characteristic columns; additional published operating points and capacitances retained as parameters.</i>	

SECTION2 Heptode	
PLATE RESISTANCE	600000 Ω
TRANSCONDUCTANCE	0.00035 S
MAXIMUM PLATE VOLTAGE	300 V
MAXIMUM SCREEN VOLTAGE	150 V
MAXIMUM PLATE DISSIPATION	0.75 W
MAXIMUM SCREEN DISSIPATION	0.7 W
MAXIMUM CATHODE CURRENT	16 mA
<i>Hexode mixer has no canonical SectionType; mapped to Other.</i>	

Glass version of the triode-hexode oscillator/mixer frequency converter.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1938 Raytheon

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

1938 RAYTHEON

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
(For Conversion Transconductance	2 μ S	(For Conversion Transconductance 2 umhos)
proximately 300C umhoa ohen the triode olate voltage is	100 V	proximately 300C umhoa ohen the triode olate voltage is 100 volts and the

1938 RAYTHEON

Section 2 · Heptode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Hexode Socreen Current 6.2	6 mA	Hexode Socreen Current 6.2 6.0 ma



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1948 Brimar Radio Valve Manual

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

1948 BRIMAR RADIO VALVE MANUAL

Section 1 · Triode

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Service	Oscillator	—

1948 BRIMAR RADIO VALVE MANUAL

Section 2 · Heptode

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Service	Frequency changer/mixer	—



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

1950 Sylvania

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

1950 SYLVANIA

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum Plate Voltage	125 V	—
Maximum Plate Dissipation	0.75 W	—
Oscillator Plate Current	3.8 mA	Triode oscillator

1950 SYLVANIA

Section 2 · Heptode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Resistance	600000 ohm	—
Conversion Conductance	350 μ S	250 V hexode plate

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum Plate Voltage	300 V	—
Maximum Screen Voltage	150 V	—
Maximum Plate Dissipation	0.75 W	—
Maximum Screen Dissipation	0.7 W	—
Maximum Cathode Current	16 mA	—



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1958 Brimar Radio Valve No 7

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

1958 BRIMAR RADIO VALVE NO 7

Section 1 · Triode

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Application	Oscillator	—

1958 BRIMAR RADIO VALVE NO 7

Section 2 · Heptode

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Application	Frequency changer / mixer	—



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

195X General Electric Essential Characteristics

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

195X GENERAL ELECTRIC ESSENTIAL CHARACTERISTICS

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Oscillator-grid current	0.15 mA	Converter
Oscillator-grid resistor	50000 Ω	Converter
Oscillator-triode plate current	3.8 mA	Converter

195X GENERAL ELECTRIC ESSENTIAL CHARACTERISTICS

Section 2 · Heptode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	250 V	Converter
Screen voltage	100 V	Converter
Control-grid voltage	-3 V	Converter
Plate current	2.5 mA	Converter
Screen current	6 mA	Converter

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	600000 Ω	Converter
Conversion transconductance	350 μS	Converter



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

1961 Ferranti Technical Handbook

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

1961 FERRANTI TECHNICAL HANDBOOK

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Triode plate voltage	100 V	Oscillator
Triode plate current	3.8 mA	Oscillator
Oscillator grid current	0.1 mA	Point1
Oscillator grid current	0.15 mA	Point2

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Triode input capacitance	6.5 pF	—
Triode output capacitance	3.4 pF	—

1961 FERRANTI TECHNICAL HANDBOOK

Section 2 · Heptode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Hexode plate voltage	100 V	Point1
Hexode screen-grid voltage	100 V	Point1
Hexode control-grid voltage	-3 V	Point1
Hexode plate current	2.3 mA	Point1
Hexode screen-grid current	6.2 mA	Point1
Hexode plate voltage	250 V	Point2

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Hexode plate resistance	400000 Ohm	Point1
Conversion conductance	330 uS	Point1
Hexode plate resistance	600000 Ohm	Point2
Conversion conductance	360 uS	Point2

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Hexode input capacitance	4.6 pF	—
Hexode output capacitance	4.8 pF	—



SOURCE OPERATING CONDITIONS

1961 Tung Sol

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

1961 TUNG SOL

Section 1 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
OscillatorAnodeVoltage	100 V	ConverterService

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
OscillatorAnodeCurrent	3.8 mA	ConverterService

1961 TUNG SOL

Section 2 · Heptode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HexodePlateVoltage	250 V	ConverterService
HexodeScreenVoltage	100 V	ConverterService

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HexodePlateCurrent	2.5 mA	ConverterService
HexodeScreenCurrent	6 mA	ConverterService
Conversion Transconductance	350 uS	ConverterService

TUBE TINKER

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and their source documents.

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