



ELECTRONIC TUBE REFERENCE

DK96

Voltage - Pentode or Tetrode (under 100V) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

HEPTODE

Very low-consumption battery heptode for oscillator-mixer frequency conversion in portable radios. Its 1.4 V, 25 mA filament is specifically suited to receivers where extending battery life is important.

GENERAL CHARACTERISTICS

BASE DESIGNATION	B7G	BASE PINS	7
NOMINAL HEATER	1.4 V / 25 mA	PARALLEL HEATER	1.4 V / 25 mA
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Heptode	
PLATE RESISTANCE	800000 Ω
TRANSCONDUCTANCE	0.0003 S
AMPLIFICATION FACTOR	7.5
MAXIMUM PLATE VOLTAGE	90 V
MAXIMUM SCREEN VOLTAGE	60 V
MAXIMUM PLATE DISSIPATION	0.15 W
MAXIMUM SCREEN DISSIPATION	0.1 W
MAXIMUM CATHODE CURRENT	2.6 mA
<i>Published ratings and characteristics promoted from the printed technical data.</i>	

Directly heated heptode frequency converter for low-power receiver mixer service.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1953 RFT Rundfunk Technik

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

1953 RFT RUNDFUNK TECHNIK

Section 1 · Heptode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterVoltageNominal	1.4 V	Nominal
HeaterCurrentNominal	25 mA	Nominal
Maximum Plate Voltage	90 V	—
Maximum Screen Voltage	90 V	—
Maximum Plate Dissipation	0.15 W	—
Maximum Screen Dissipation	0.1 W	—
Maximum Cathode Current	2.6 mA	—



SOURCE OPERATING CONDITIONS

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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 · Heptode

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



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 · Heptode

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



SOURCE DATA APPENDIX

1963 Mullard

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

1963 MULLARD

Section 1 · Heptode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Filament Voltage Series	1.3 V	—
Filament Current Series	24 mA	—
Filament Voltage Parallel	1.4 V	—
Filament Current Parallel	25 mA	—
Conversion Transconductance	300 uS	—
Plate Resistance	800000 ohm	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Supply Voltage	85 V	FrequencyChanger
Screen Voltage Approximate	68 V	FrequencyChanger
Oscillator Grid Voltage Approximate	35 V	FrequencyChanger
Oscillator Drive Voltage	4 V	RMS
Total Cathode Current	2.4 mA	FrequencyChanger

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Current	0.6 mA	FrequencyChanger
Screen Current	0.14 mA	FrequencyChanger
Oscillator Current	1.5 mA	FrequencyChanger
Grid Current	85 uA	FrequencyChanger
Maximum Plate Supply Voltage	110 V	Absolute
Maximum Plate Voltage	90 V	—
Maximum Plate Dissipation	0.15 W	—
Maximum Screen Voltage	60 V	—
Maximum Screen Dissipation	0.1 W	—
Maximum Cathode Current	2.6 mA	—



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1963 Philips Electron Tubes Handbook V1

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

1963 PHILIPS ELECTRON TUBES HANDBOOK V1

Section 1 · Heptode

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-1 capacitance	3.9 pF	—
Grid-2 capacitance	4.8 pF	—
Grid-3 capacitance	7.4 pF	—
Plate capacitance	8.1 pF	—
Plate-to-grid-1 capacitance	—0.11 pF	—
Plate-to-grid-3 capacitance	—0.36 pF	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	85 V	SeparateOscillator
Plate current	0.6 mA	SeparateOscillator

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Screen current	1.5 mA	SeparateOscillator
Oscillator plate voltage	85 V	OscillatorSection
Oscillator screen voltage	35 V	OscillatorSection
Oscillator screen current	1.7 mA	OscillatorSection

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Conversion transconductance	300 uS	—


SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

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1967 Mullard Receiving Tubes for Maintenance

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

1967 MULLARD RECEIVING TUBES FOR MAINTENANCE

Section 1 · Heptode

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate-to-All Capacitance	8.1 pF	PublishedCapacitance
Grid1-to-All Capacitance	3.9 pF	PublishedCapacitance
Grid2-to-All Capacitance	4.8 pF	PublishedCapacitance
Grid3-to-All Capacitance	7.4 pF	PublishedCapacitance
Plate-to-Grid1 Capacitance	<0.11 pF	PublishedCapacitance
Plate-to-Grid2 Capacitance	<0.3 pF	PublishedCapacitance
Plate-to-Grid3 Capacitance	<0.36 pF	PublishedCapacitance
Grid1-to-Grid2 Capacitance	3 pF	PublishedCapacitance
Grid1-to-Grid3 Capacitance	<0.2 pF	PublishedCapacitance
Grid2-to-Grid3 Capacitance	1.6 pF	PublishedCapacitance

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Supply Voltage	85 V	FrequencyChanger;85VPoint
Grid4 Voltage	68 V	FrequencyChanger;85VPoint
Grid2 Voltage	35 V	FrequencyChanger;85VPoint
Oscillator Drive RMS	4 V	FrequencyChanger;85VPoint
Cathode Current	2.4 mA	FrequencyChanger;85VPoint
Plate Current	600 uA	FrequencyChanger;85VPoint
Grid4 Current	140 uA	FrequencyChanger;85VPoint
Grid2 Current	1.5 mA	FrequencyChanger;85VPoint
Grid1 Current	85 uA	FrequencyChanger;85VPoint
Conversion Conductance	300 uS	FrequencyChanger;85VPoint
Plate Resistance	800 kohm	FrequencyChanger;85VPoint
Oscillator Transconductance	600 uS	FrequencyChanger;85VPoint
Oscillator Mu	7.5	FrequencyChanger;85VPoint
Supply Voltage Absolute	110 V	PublishedLimits
Supply Voltage	90 V	PublishedLimits
Plate Voltage	90 V	PublishedLimits
Plate Dissipation	0.15 W	PublishedLimits
Grid4 Voltage	60 V	PublishedLimits
Grid4 Dissipation	0.1 W	PublishedLimits
Grid2 Voltage	90 V	PublishedLimits
Grid2 Dissipation	0.03 W	PublishedLimits
Cathode Current	2.6 mA	PublishedLimits



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

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1968 Mazda Belvu

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

1968 MAZDA BELVU

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Application	FrequencyConverter	text —



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

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1999 Philips 0-D

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

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	0.8 MΩ	FrequencyConverter
Conversion transconductance	275 μS	Vg3=-4.5V

TUBE TINKER

An independent reference for electronic tubes, vacuum tubes,
and their source documents.

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