



ELECTRONIC TUBE REFERENCE

DF96

Voltage Pentode - Remote Cutoff (single) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

PENTODE

Directly heated variable-mu voltage pentode designed for RF amplification. Its low-power filament and gradual cutoff characteristic support controlled gain in portable battery-operated high-frequency equipment.

GENERAL CHARACTERISTICS

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

SECTION RATINGS

SECTION 1 Pentode	
PLATE RESISTANCE	1000000 Ω
TRANSCONDUCTANCE	0.00085 S
AMPLIFICATION FACTOR	18
MAXIMUM PLATE VOLTAGE	120 V
MAXIMUM SCREEN VOLTAGE	90 V
MAXIMUM PLATE DISSIPATION	0.25 W
MAXIMUM SCREEN DISSIPATION	0.1 W
MAXIMUM CATHODE CURRENT	2.2 mA
<i>Published ratings and characteristics promoted from the printed technical data.</i>	

Directly heated variable-mu voltage pentode for RF amplification.



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 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterVoltageNominal	1.4 V	Nominal
HeaterCurrentNominal	25 mA	Nominal
Maximum Plate Voltage	120 V	—
Maximum Screen Voltage	90 V	—
Maximum Plate Dissipation	0.25 W	—
Maximum Screen Dissipation	0.1 W	—
Maximum Cathode Current	2.2 mA	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	850 μ S	Typical
Plate Resistance	1000000 ohm	Typical



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 · Pentode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Cutoff characteristic	Variable-mu	—

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Application	RF / IF amplifier	—



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

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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 · Pentode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Cutoff characteristic	Variable-mu	—

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Application	IF amplifier	—



SOURCE DATA APPENDIX

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1963 Mullard

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1963 MULLARD

Section 1 · Pentode

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	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	850 μ S	—
Plate Resistance	1000000 ohm	Representative
Grid Voltage at gm=10 μ S	-5.5 V	Representative
Plate-Grid Capacitance	0.01 pF	Maximum
Input Capacitance	3.3 pF	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	85 V	IFAmplifier
Screen Voltage	64 V	IFAmplifier
Plate Current	1.65 mA	IFAmplifier
Screen Current	0.55 mA	IFAmplifier
Maximum Plate Voltage	110 V	Absolute
Maximum Screen Voltage	90 V	—
Maximum Plate Dissipation	0.25 W	—
Maximum Screen Dissipation	0.1 W	—
Maximum Cathode Current	2.2 mA	—



SOURCE OPERATING CONDITIONS

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1963 Philips Electron Tubes Handbook V1

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1963 PHILIPS ELECTRON TUBES HANDBOOK V1

Section 1 · Pentode

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-plate capacitance	—0.07 pF	—
Plate capacitance	7.8 pF	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	85 V	RF/IF amplifier
Screen voltage	64 V	RF/IF amplifier
Plate voltage	45 V	LowVoltage
Plate current	0.85 mA	LowVoltage
Screen current	0.28 mA	LowVoltage

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	850 uS	RF/IF amplifier


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 · Pentode

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate-to-Input Capacitance	<0.01 pF	PublishedCapacitance
Input Capacitance	3.3 pF	PublishedCapacitance
Output Capacitance	7.8 pF	PublishedCapacitance

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Supply Voltage	85 V	IFAmplifier;85VSupply
Screen Resistor	39 kohm	IFAmplifier;85VSupply
Screen Voltage	64 V	IFAmplifier;85VSupply
Plate Current	1.65 mA	IFAmplifier;85VSupply
Screen Current	550 uA	IFAmplifier;85VSupply

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	850 μ S	IFAmplifier;85VSupply
Plate Resistance	1 Mohm	IFAmplifier;85VSupply
Screen-to-Control-Grid Mu	18	IFAmplifier;85VSupply
Grid Voltage for 10 μ S Transconductance	-5.5 V	IFAmplifier;85VSupply
Supply Voltage Absolute	110 V	PublishedLimits
Plate Voltage	90 V	PublishedLimits
Plate Dissipation	0.25 W	PublishedLimits
Screen Voltage	90 V	PublishedLimits
Screen Dissipation	0.1 W	PublishedLimits
Cathode Current	2.2 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 Section 1 · Pentode

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Application	RFAmplifier text	—


SOURCE DATA APPENDIX

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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.

1999 PHILIPS 0-D

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Parallel heater voltage	1.4 V	Published datasheet value
Series heater voltage	1.3 V	Published datasheet value
Anode voltage	85 V	Published datasheet value
Screen-grid voltage	64 V	Published datasheet value
Anode current	1.65 mA	Published datasheet value
Screen-grid current	0.55 mA	Published datasheet value

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	850 μ S	Published datasheet value
Internal resistance	1 M Ω	Published datasheet value
Equivalent noise resistance	14 k Ω	Published datasheet value
Screen-grid amplification factor	18	Published datasheet value
Anode-grid capacitance	—0.01 pF	Published datasheet value
Input capacitance	7.8 pF	Published datasheet value