



ELECTRONIC TUBE REFERENCE

5678

Voltage Pentode or Tetrode (under 100V) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

PENTODE

Directly heated subminiature RF pentode for battery-powered miniature equipment, providing useful gain from low plate and filament supplies.

GENERAL CHARACTERISTICS

BASE DESIGNATION	1AD4	BASE PINS	5
NOMINAL HEATER	1.25 V / 50 mA	PARALLEL HEATER	– / –
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Pentode	
PLATE RESISTANCE	1000000 Ω
TRANSCONDUCTANCE	0.0011 S
MAXIMUM PLATE VOLTAGE	90 V
MAXIMUM SCREEN VOLTAGE	67.5 V
<i>Promoted from clearly identified published ratings/characteristics; additional operating points, capacitances, rectifier conditions, and application-specific values are retained in TUBE_SECTION_PARAMETER.</i>	

Directly heated subminiature pentode for RF amplification.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1957 Philips Receiving and Amplifying Tubes

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

1957 PHILIPS RECEIVING AND AMPLIFYING TUBES

Section 1 · Pentode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	67.5 V	—
Screen Voltage	67.5 V	—
Anode Current	1.8 mA	—



SOURCE OPERATING CONDITIONS

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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 · Pentode

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Input Capacitance	3.3 pF	—
Output Capacitance	3.8 pF	—
Grid-to-Plate Capacitance	0.01 pF	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	67.5 V	ClassA
Screen Voltage	67.5 V	ClassA

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid Voltage	0 V	ClassA
Plate Current	1.8 mA	ClassA
Screen Current	0.48 mA	ClassA



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

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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 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	1.25 V	Nominal
Heater current	50 mA	Nominal
Plate voltage	90 V	Published operating table; OperatingPoint1
Plate voltage	46 V	Published operating table; OperatingPoint1
Plate voltage	67.5 V	Published operating table; OperatingPoint2
Screen voltage	67.5 V	Published operating table; OperatingPoint1

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate current	0.8 mA	Published operating table; OperatingPoint1
Plate current	1.8 mA	Published operating table; OperatingPoint2
Screen current	0.22 mA	Published operating table; OperatingPoint1
Screen current	0.48 mA	Published operating table; OperatingPoint2
Transconductance	820 uS	Published operating table; OperatingPoint1
Transconductance	1 uS	Published operating table; OperatingPoint2
Transconductance	100 uS	Published operating table; OperatingPoint3



SOURCE DATA APPENDIX

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 · Pentode

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid capacitance	3.7 pF	Section1
Plate capacitance	4.6 pF	Section1
Grid-to-plate capacitance maximum	0.01 pF	Section1

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	45 V	RFAmplifier
Screen voltage	45 V	RFAmplifier
Control-grid voltage	0 V	RFAmplifier
Plate current	0.8 mA	RFAmplifier
Screen current	0.22 mA	RFAmplifier
Plate voltage	67.5 V	RFAmplifier
Screen voltage	67.5 V	RFAmplifier
Plate current	1.8 mA	RFAmplifier
Screen current	0.48 mA	RFAmplifier
Application	RF, IF, AF amplifier, oscillator, self-oscillating mixer, AM detector	
		Section1

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	820 μ S	45V
Plate resistance	1.2 M Ω	45V
Transconductance	1100 μ S	67.5V
Plate resistance	1 M Ω	67.5V



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

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1966 Tung Sol Electronic Tubes 3 of 4

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

1966 TUNG SOL ELECTRONIC TUBES 3 OF 4

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	67.5 V	ClassA
Grid #2 voltage	67.5 V	ClassA
Grid #1 voltage	0 V	ClassA
Plate current	1.8 mA	ClassA
Grid #2 current	0.48 mA	ClassA

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	1000000 ohm	ClassA
Transconductance	1200 μ S	ClassA
Grid #1 voltage for transconductance 10 μ S	-4 V	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-plate capacitance	0.01 pF	—
Input capacitance	3.3 pF	—
Output capacitance	3.8 pF	—



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 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.

1999 PHILIPS 0-D

Section 1 · Pentode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	1.25 V	—
Heater current	50 mA	—
Plate voltage	67.5 V	—
Screen voltage	67.5 V	—
Plate current	1.8 mA	—
Screen current	0.48 mA	—
Transconductance	1100 uS	—
Plate resistance	1000000 ohm	—
Low-voltage transconductance	820 uS	PlateAndScreenVoltage=45V