

ELECTRONIC TUBE REFERENCE

UBC81

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

CONSOLIDATED TECHNICAL DATA

3 SECTIONS
CONSTRUCTION
DIODE-DIODE-TRIODE

Series-heater double-diode triode for receiver detector and audio-amplifier service. Paired diodes provide signal and control rectification while the high-mu triode supplies resistance-coupled audio gain.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	9
NOMINAL HEATER	14 V / 100 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Dissimilar

SECTION RATINGS

SECTION1 Diode	
MAXIMUM PLATE VOLTAGE	200 V
MAXIMUM CATHODE CURRENT	0.8 mA
PEAK INVERSE VOLTAGE	350 V
NOMINAL OUTPUT CURRENT	0.8 mA
PEAK FORWARD CURRENT	5 mA
Published ratings and characteristics promoted from the approved source.	

SECTION2 Diode	
No fixed ratings recorded.	
Second physical detector diode section added in approved reconciliation.	

SECTION3 Triode	
PLATE RESISTANCE	42000 Ω
TRANSCONDUCTANCE	0.00165 S
AMPLIFICATION FACTOR	70
MAXIMUM PLATE VOLTAGE	170 V
MAXIMUM PLATE DISSIPATION	0.5 W
MAXIMUM CATHODE CURRENT	5 mA
<i>Published ratings and characteristics promoted from the approved source.</i>	

Double-diode triode for detection and audio-frequency voltage amplification. The supplied French datasheet was translated to English for descriptive output.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1953 La Radiotechnique

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

1953 LA RADIOTECHNIQUE

Section 1 · Diode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterVoltageNominal	14 V	Nominal
HeaterCurrentNominal	100 mA	Nominal
Maximum Plate Voltage	200 V	—

1953 LA RADIOTECHNIQUE

Section 3 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterVoltageNominal	14 V	Nominal
HeaterCurrentNominal	100 mA	Nominal
Maximum Plate Voltage	170 V	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	1650 μ S	Typical
Amplification Factor	70	Typical
Plate Resistance	42000 ohm	Typical



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 · Diode

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Application	Signal detection / AVC	—

1957 PHILIPS RECEIVING AND AMPLIFYING TUBES

Section 3 · Triode

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Application	AF amplifier	—

[SOURCE DATA APPENDIX](#)

1958 Mullard Receiving Tubes

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

1958 MULLARD RECEIVING TUBES

Section 1 · Diode

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Application	Signal detection	—

1958 MULLARD RECEIVING TUBES

Section 3 · Triode

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Application	AF voltage amplification	—

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 · Diode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum inverse voltage	350 V	—
Maximum average diode current	0.8 mA	—
Maximum peak diode current	5 mA	—

1963 PHILIPS ELECTRON TUBES HANDBOOK V1

Section 3 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	170 V	TriodeSection
Plate current	1.5 mA	TriodeSection

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	1650 μ S	TriodeSection
Amplification factor	70	TriodeSection
Plate resistance	42 kohm	TriodeSection

1972 Philips Receiving Tubes

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

1972 PHILIPS RECEIVING TUBES

Section 1 · Diode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterVoltageNominal	14 V	Nominal
HeaterCurrentNominal	100 mA	Nominal
Maximum Cathode Current	0.8 mA	—
Maximum Peak Inverse Voltage	350 V	—
Rectified Output Current	0.8 mA	—
PeakForwardCurrent	5 mA	—

1972 PHILIPS RECEIVING TUBES

Section 3 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterVoltageNominal	14 V	Nominal
HeaterCurrentNominal	100 mA	Nominal
Maximum Plate Voltage	250 V	—
Maximum Plate Dissipation	0.5 W	—
Maximum Cathode Current	5 mA	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	1650 μ S	Typical
Amplification Factor	70	Typical
Plate Resistance	42000 ohm	Typical



1973 Mazda Valves Binder 2

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

1973 MAZDA VALVES BINDER 2

Section 1 · Diode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater or filament voltage	13 V	Published nominal value
Heater or filament current	100 mA	Published nominal value

1973 MAZDA VALVES BINDER 2

Section 3 · Triode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater or filament voltage	13 V	Published nominal value
Heater or filament current	100 mA	Published nominal value
Transconductance	1400 μ S	Published operating characteristic

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate dissipation	1 W	Published maximum rating



SOURCE DATA APPENDIX

1999 Philips E-Z

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

1999 PHILIPS E-Z

Section 3 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Typical anode current	1.5 mA	Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	1650 μ S	Triode
Amplification factor	70	Triode

TUBE TINKER

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

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