



ELECTRONIC TUBE REFERENCE

EBC81

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

CONSOLIDATED TECHNICAL
DATA

3 SECTIONS

CONSTRUCTION

DIODE-DIODE-TRIODE

Double-diode high-mu triode for radio receiver detection and audio-frequency voltage amplification. Two diodes provide detector and related rectification functions while the triode supplies resistance-coupled audio gain.

GENERAL CHARACTERISTICS

BASE DESIGNATION	NOVAL	BASE PINS	—
NOMINAL HEATER	6.3 V / 230 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Common cathode	SECTION CONSTRUCTION	Dissimilar

SECTION RATINGS

SECTION1 Diode	
PEAK INVERSE VOLTAGE	350 V
NOMINAL OUTPUT CURRENT	0.8 mA
PEAK FORWARD CURRENT	5 mA
MAXIMUM HEATER-CATHODE VOLTAGE	100 V
<i>Source-published values promoted where directly stated; additional values retained in parameter table.</i>	

SECTION2 Diode	
PEAK INVERSE VOLTAGE	350 V
NOMINAL OUTPUT CURRENT	0.8 mA
PEAK FORWARD CURRENT	5 mA
MAXIMUM HEATER-CATHODE VOLTAGE	100 V
<i>Source-published values promoted where directly stated; additional values retained in parameter table.</i>	

SECTION3 Triode	
PLATE RESISTANCE	58000 Ω
TRANSCONDUCTANCE	0.0012 S
AMPLIFICATION FACTOR	70
MAXIMUM PLATE VOLTAGE	300 V
MAXIMUM PLATE DISSIPATION	0.5 W
MAXIMUM CATHODE CURRENT	5 mA
<i>Source-published values promoted where directly stated; additional values retained in parameter table.</i>	

Dual-diode triode for detection and low-frequency voltage amplification.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1963 Philips Electron Tubes Handbook V1a

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

1963 PHILIPS ELECTRON TUBES HANDBOOK V1A

Section 1 · Diode

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Diode capacitance	0.9 pF	Diode1

1963 PHILIPS ELECTRON TUBES HANDBOOK V1A

Section 2 · Diode

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Diode capacitance	0.9 pF	Diode2

1963 PHILIPS ELECTRON TUBES HANDBOOK V1A

Section 3 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	250 V	AudioAmplifier
Control-grid voltage	-3 V	AudioAmplifier
Plate current	1 mA	AudioAmplifier

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	1200 μ S	Section1
Amplification factor	70	Section1
Plate resistance	58000 Ω	Section1

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid capacitance	2.3 pF	Section1

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate capacitance	2.3 pF	Section1
Grid-to-plate capacitance	1.2 pF	Section1



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1967 Mullard Receiving and Amplifying Valves

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

1967 MULLARD RECEIVING AND AMPLIFYING VALVES

Section 1 · Diode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum Anode Current	800 uA	EachDiode
Maximum Peak Anode Current	5 mA	EachDiode
Peak Inverse Voltage	350 V	—
Nominal Output Current	0.8 mA	—
Peak Forward Current	5 mA	—
Interelectrode Capacitance Data Published	1	SourceTablePresent

1967 MULLARD RECEIVING AND AMPLIFYING VALVES

Section 3 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	250 V	TriodeSection
Grid Voltage	-3 V	TriodeSection
Plate Current	1 mA	TriodeSection
Transconductance	1200 uS	TriodeSection
Amplification Factor	70	TriodeSection
Plate Resistance	58000 ohm	TriodeSection
Plate Resistance	58000 ohm	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	1200 μ S	—
Amplification Factor	70	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum Heater-Cathode Voltage	100 V	TriodeSection
Maximum Plate Voltage	300 V	—
Maximum Plate Dissipation	0.5 W	—
Maximum Cathode Current	5 mA	—
Interelectrode Capacitance Data Published	1	SourceTablePresent



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

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1968 Mazda Belvu

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1968 MAZDA BELVU

Section 1 · Diode

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Application	Detector text	—

1968 MAZDA BELVU

Section 3 · Triode

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Application	AFVoltageAmplifier text	—



SOURCE DATA APPENDIX

1972 Philips Receiving Tubes

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1972 PHILIPS RECEIVING TUBES

Section 1 · Diode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Diode voltage, negative peak -Vdp max	—350 V	Maximum
Diode current, average Iq max	—0.8 mA	Maximum
Cathode to heater voltage Vkf max	—100 V	Maximum

1972 PHILIPS RECEIVING TUBES

Section 3 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode voltage Va 0 max	—550 V	Maximum
Va max	—300 V	Maximum
Anode dissipation Wy max	—0.5 W	Maximum
Cathode current Ik max	—5 mA	Maximum
Grid resistor Rg max	—3 MQ	Maximum
Cathode to heater voltage Vit max	—100 V	Maximum



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 1 · Diode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum diode current	0.8 mA	—
Maximum diode peak voltage	200 V	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Diode 1-heater capacitance maximum	0.25 pF	—
Diode 2-heater capacitance maximum	0.05 pF	—

1999 PHILIPS E-Z

Section 3 · Triode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	—
Heater current	230 mA	—
Typical plate voltage	250 V	—
Transconductance	1200 μ S	—
Amplification factor	70	—
Plate resistance	58000 ohm	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	300 V	—
Maximum plate dissipation	0.5 W	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-heater capacitance maximum	0.05 pF	—

TUBE TINKER

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

