



ELECTRONIC TUBE REFERENCE

UBC41

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

CONSOLIDATED TECHNICAL
DATA

3 SECTIONS

CONSTRUCTION

DIODE-DIODE-TRIODE

Series-heater double-diode high-mu triode combining receiver detection, AVC generation, and audio voltage amplification. Two diodes provide signal and control rectification while the triode supplies subsequent gain.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	8
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
<i>Published ratings and characteristics promoted from the approved source.</i>	

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

SECTION3 Triode	
PLATE RESISTANCE	45000 Ω
TRANSCONDUCTANCE	0.0017 S
AMPLIFICATION FACTOR	75
MAXIMUM PLATE VOLTAGE	170 V
MAXIMUM PLATE DISSIPATION	0.5 W
<i>Published ratings and characteristics promoted from the approved source.</i>	

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

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1951 Mullard Valve and Service Manual

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

1951 MULLARD VALVE AND SERVICE MANUAL

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	42000 ohm	TriodeSection

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	—

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	1700 μ S	Typical
Amplification Factor	75	Typical
Plate Resistance	45000 ohm	Typical



SOURCE DATA APPENDIX

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 · 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

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 uS	TriodeSection
Amplification factor	70	TriodeSection
Plate resistance	42 kohm	TriodeSection



SOURCE DATA APPENDIX

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 · Diode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
I _h	100 mA	Published in approved UBC41.pdf target datasheet; Section2
C _{a " d-h <}	0.05 pF	Published in approved UBC41.pdf target datasheet; Section2

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
C _{a /d - gt <}	0.007 pF	Published in approved UBC41.pdf target datasheet; Section2
C _{a" d - g t <}	0.03 pF	Published in approved UBC41.pdf target datasheet; Section2
C _{a d --a t <}	0.01 pF	Published in approved UBC41.pdf target datasheet; Section2
C _{g_ k}	2.75 pF	Published in approved UBC41.pdf target datasheet; Section2
C _{a- k}	1.5 pF	Published in approved UBC41.pdf target datasheet; Section2
C _{a - g}	1.3 pF	Published in approved UBC41.pdf target datasheet; Section2
C _{it -II <}	0.05 pF	Published in approved UBC41.pdf target datasheet; Section2
I	0.8 pF	Published in approved UBC41.pdf target datasheet; Section2
C _{a " d - k}	0.7 pF	Published in approved UBC41.pdf target datasheet; Section2
C _{a ' d- a " ct <}	0.3 pF	Published in approved UBC41.pdf target datasheet; Section2
C _{a ' d - h <}	0.1 pF	Published in approved UBC41.pdf target datasheet; Section2

1967 MULLARD RECEIVING TUBES FOR MAINTENANCE

Section 3 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
I _h	100 mA	Published in approved UBC41.pdf target datasheet; Section1

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Ca " d-h <	0.05 pF	Published in approved UBC41.pdf target datasheet; Section1

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Ca /d - gt <	0.007 pF	Published in approved UBC41.pdf target datasheet; Section1
Ca" d - g t <	0.03 pF	Published in approved UBC41.pdf target datasheet; Section1
Ca d --a t <	0.01 pF	Published in approved UBC41.pdf target datasheet; Section1
Cg_ k	2.75 pF	Published in approved UBC41.pdf target datasheet; Section1
Ca- k	1.5 pF	Published in approved UBC41.pdf target datasheet; Section1
Ca - g	1.3 pF	Published in approved UBC41.pdf target datasheet; Section1
Cit -II <	0.05 pF	Published in approved UBC41.pdf target datasheet; Section1
I	0.8 pF	Published in approved UBC41.pdf target datasheet; Section1
Ca " d - k	0.7 pF	Published in approved UBC41.pdf target datasheet; Section1
Ca ' d- a " ct <	0.3 pF	Published in approved UBC41.pdf target datasheet; Section1
Ca ' d - h <	0.1 pF	Published in approved UBC41.pdf target datasheet; Section1