



ELECTRONIC TUBE REFERENCE

UY41

Rectifier - Half Wave electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

RECTIFIER

Indirectly heated half-wave rectifier for AC/DC mains supplies using 100 mA heater chains. Its 31 V heater provides conventional transformerless rectification.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	31 V / 100 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Rectifier	
PEAK INVERSE VOLTAGE	700 V
NOMINAL OUTPUT CURRENT	100 mA
PEAK FORWARD CURRENT	600 mA
MAXIMUM HEATER-CATHODE VOLTAGE	550 V
Indirectly heated high-vacuum half-wave rectifier for 100 mA series-string operation.	

Indirectly heated half-wave rectifier with a 100 mA heater for DC/AC mains-operated power supplies.

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 1 · Rectifier

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
RMS Input Voltage	250 V	—
Reservoir Capacitance	50 uF	—
Minimum Series Resistance	160 ohm	Input=220Vrms; ReservoirCapacitance=50uF
Minimum Series Resistance	0 ohm	Input=127Vrms; ReservoirCapacitance=50uF
DC Output Voltage	191 V	Input=220Vrms; LoadCurrent=90mA; R=160ohm

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 · Rectifier

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage	31 V	—
Heater Current	100 mA	—

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 · Rectifier

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum peak inverse voltage	700 V	HalfWave
Maximum DC output current	100 mA	HalfWave
Maximum peak cathode/anode current	600 mA	HalfWave
Maximum heater-cathode voltage	550 V	CathodePositive
Maximum filter capacitance	50 uF	CapacitorInputFilter
AC input voltage	110 V RMS	HalfWave
Minimum series resistance	0 ohm	HalfWave; ACInput=110V
DC output voltage	113 V	HalfWave; ACInput=110V
AC input voltage	127 V RMS	HalfWave
Minimum series resistance	0 ohm	HalfWave; ACInput=127V
DC output voltage	135 V	HalfWave; ACInput=127V
AC input voltage	220 V RMS	HalfWave
Minimum series resistance	160 ohm	HalfWave; ACInput=220V
DC output voltage	188 V	HalfWave; ACInput=220V
AC input voltage	250 V RMS	HalfWave
Minimum series resistance	210 ohm	HalfWave; ACInput=250V
DC output voltage	205 V	HalfWave; ACInput=250V

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 · Rectifier

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
lou l max	100 mA	Published in approved UY41.pdf target datasheet; Section1



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

SOURCE PDF

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 · Rectifier

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
od e current of e UY	41	od e current of e UY 41
resistor. The en grid voltages from (, . As tted with	2	resistor. The en grid voltages from (, . As tted with 2 loudspeaker e to
be remembered that the voltage drop across this choke will be roughly	10 V	be remembered that the voltage drop across this choke will be roughly 10 V
for a total anode current of	125	for a total anode current of 80 mA and a 1.C. resistance of 125 ohms,
If the receiver is operated on	220 V	If the receiver is operated on 220 V mains, the voltage across (is about
Any parasitic R.F. currents flowing through the valve UY	41	Any parasitic R.F. currents flowing through the valve UY 41 may undergo
but a capacitor of	2	but a capacitor of 0.022 . F in parallel with the valve (see Fig. 2) will prevent

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater current I	100 mA	Heater current I = 100 mA
Heater voltage V; V;	31 V	Heater voltage V; = 31V
Anode current (I,) of the UY	41	Anode current (I,) of the UY 41 as a function Regulation of the UY 41 (output voltage

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Mains voltage ¥V,	250	Mains voltage ¥V, = 127 220 max. 250 Vgys
Rectified current . . . I, = max	100 mA	Rectified current . . . I, = max. 100 max. 100 max. 100 mA

TUBE TINKER

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and their source documents.

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