



ELECTRONIC TUBE REFERENCE

4652

Rectifier - Full Wave electronic tube

CONSOLIDATED TECHNICAL DATA

2 SECTIONS

CONSTRUCTION

RECTIFIER-RECTIFIER

Gas-filled full-wave rectifier for power-supply service. Low gas-discharge forward voltage and useful current capability distinguish it from conventional high-vacuum dual-diode rectifiers.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	8
NOMINAL HEATER	1.6 V / 3.2 A	PARALLEL HEATER	— / —
HEATING	Direct	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Rectifier	
TRANSCONDUCTANCE	0.006 S
AMPLIFICATION FACTOR	4
MAXIMUM PLATE VOLTAGE	750 V
MAXIMUM SCREEN VOLTAGE	250 V
MAXIMUM PLATE DISSIPATION	25 W
MAXIMUM SCREEN DISSIPATION	3 W
MAXIMUM CATHODE CURRENT	150 mA
PEAK INVERSE VOLTAGE	1000 V
NOMINAL OUTPUT CURRENT	125 mA
FORWARD VOLTAGE DROP	15 V
<i>RF beam-power tube</i>	

SECTION2 Rectifier	
TRANSCONDUCTANCE	0.006 S
AMPLIFICATION FACTOR	4
MAXIMUM PLATE VOLTAGE	750 V
MAXIMUM SCREEN VOLTAGE	250 V
MAXIMUM PLATE DISSIPATION	25 W
MAXIMUM SCREEN DISSIPATION	3 W
MAXIMUM CATHODE CURRENT	150 mA
PEAK INVERSE VOLTAGE	1000 V
NOMINAL OUTPUT CURRENT	125 mA
FORWARD VOLTAGE DROP	15 V
<i>Second physical rectifier section; electrical properties populated from corresponding identical section.</i>	

Gas-filled full-wave rectifier.



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

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
RMS input per anode maximum	500 V	—

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Filling	Gas	—

1957 PHILIPS RECEIVING AND AMPLIFYING TUBES

Section 2 · Rectifier

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
RMS input per anode maximum	500 V	—

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Filling	Gas	—



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1971 RCA HB3 Binder 6 of 7

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

1971 RCA HB3 BINDER 6 OF 7

Section 1 · Rectifier

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater/filament voltage nominal	1.6 V	WholeTube
Heater/filament current nominal	3.2 A	WholeTube
sleeve and grid No	2 pF	Published source row
sleeve and grid No (value 2)	11 pF	Published source row
Plate to filament & grid No	3	Published source row
sleeve and grid No	2 pF	Published source row
sleeve and grid No (value 2)	8.5 pF	Published source row
DC Plate Voltage	750 V	Published source row
DC Grid-No	2 V	Published source row
DC Grid-No (value 2)	250 V	Published source row
DC Grid-No.1 Voltage	-150 V	Published source row
DC Plate Current	150 mA	Published source row
DC Grid-No.1 Current	4 mA	Published source row
Plate Input	90 W	Published source row
Grid-No	2 W	Published source row
Grid-No (value 2)	3 W	Published source row
Plate Dissipation	25 W	Published source row
Transconductance	0.006 A/V	Promoted field corroboration
Amplification factor	4	Promoted field corroboration
Verified Transconductance	0.006 A/V	Verified from supplied datasheet rating/characteristic table
Verified Amplification factor	4	Verified from supplied datasheet rating/characteristic table

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Voltage (AC or DC)	1.6 %	Published source row
Voltage (AC or DC) (value 2)	10 %	Published source row
Current at	1.6 V	Published source row
Current at (value 2)	3.2 V	Published source row

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heating time	1	Published source row
Transconductance°	6000	Published source row
Mu-Factor°, Grid No	2	Published source row
Mu-Factor°, Grid No (value 2)	4	Published source row
DC Plate Voltage	400 V	Published source row
DC Grid-No	2 V	Published source row
DC Grid-No (value 2)	190 V	Published source row
DC Grid-No.1 Voltaged	-60 V	Published source row
DC Plate Current	150 mA	Published source row
DC Grid-No	2 mA	Published source row
DC Grid-No (value 2)	11 mA	Published source row
DC Grid-No.1 Current (Approx)	2 mA	Published source row
Power Output (Approx.)	30 W	Published source row
Grid-No.1 Circuit Resistance	30000	Published source row
For plate volts =	200 V	Published source row
For plate volts = (value 2)	2 V	Published source row
For plate volts = (value 3)	200 V	Published source row
current =	100 mA	Published source row
c See Electrical Considerations -Grid-No	2	Published source row
Maximum plate voltage	750 V	Promoted field corroboration
Maximum screen voltage	250 V	Promoted field corroboration
Maximum plate dissipation	25 W	Promoted field corroboration
Verified Maximum plate voltage	750 V	Verified from supplied datasheet rating/characteristic table
Verified Maximum screen voltage	250 V	Verified from supplied datasheet rating/characteristic table
Verified Maximum plate dissipation	25 W	Verified from supplied datasheet rating/characteristic table

Section 2 · Rectifier

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater/filament voltage nominal	1.6 V	WholeTube
Heater/filament current nominal	3.2 A	WholeTube
sleeve and grid No	2 pF	Published source row
sleeve and grid No (value 2)	11 pF	Published source row
Plate to filament & grid No	3	Published source row
sleeve and grid No	2 pF	Published source row
sleeve and grid No (value 2)	8.5 pF	Published source row
DC Plate Voltage	750 V	Published source row
DC Grid-No	2 V	Published source row
DC Grid-No (value 2)	250 V	Published source row
DC Grid-No.1 Voltage	-150 V	Published source row

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Voltage (AC or DC)	1.6 %	Published source row
Voltage (AC or DC) (value 2)	10 %	Published source row
Current at	1.6 V	Published source row
Current at (value 2)	3.2 V	Published source row
Heating time	1	Published source row
Transconductance°	6000	Published source row
Mu-Factor°, Grid No	2	Published source row
Mu-Factor°, Grid No (value 2)	4	Published source row



SOURCE DATA APPENDIX

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 · Rectifier

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	4 V	—
Heater current	2.4 A	—
Maximum transformer secondary voltage	1000 Vrms	—
Maximum output current	120 mA	—
Maximum forward voltage drop	15 V	—
Minimum series resistance	100 ohm	CapacitorInputFilter
Maximum filter capacitance	16 uF	CapacitorInputFilter

1999 PHILIPS 0-D
Section 2 · Rectifier

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	4 V	—
Heater current	2.4 A	—
Maximum transformer secondary voltage	1000 Vrms	—
Maximum output current	120 mA	—
Maximum forward voltage drop	15 V	—
Minimum series resistance	100 ohm	CapacitorInputFilter
Maximum filter capacitance	16 uF	CapacitorInputFilter

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