



ELECTRONIC TUBE REFERENCE

7868

Power - Beam (NOT sweep) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

BEAMPOWER

Beam-power audio-output tube widely used in high-fidelity amplifiers, providing substantial Class-AB output from a compact nine-pin envelope.

GENERAL CHARACTERISTICS

BASE DESIGNATION	9RW	BASE PINS	9
NOMINAL HEATER	6.3 V / 800 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Beam Power	
PLATE RESISTANCE	29000 Ω
TRANSCONDUCTANCE	0.0102 S
MAXIMUM PLATE VOLTAGE	550 V
MAXIMUM SCREEN VOLTAGE	450 V
MAXIMUM PLATE DISSIPATION	19 W
MAXIMUM SCREEN DISSIPATION	4 W
MAXIMUM CATHODE CURRENT	90 mA
<i>Published electrical section from supplied RCA data sheet.</i>	

Novar power pentode for output stages of high-fidelity audio amplifiers and radio receivers.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1950 Sylvania

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

1950 SYLVANIA

Section 1 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage	6.3 V	Nominal published value
Heater Current	800 mA	Nominal published value



SOURCE OPERATING CONDITIONS

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1965 Sylvania Electronic Tubes Vol3

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

1965 SYLVANIA ELECTRONIC TUBES VOL3

Section 1 · Beam Power

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage	6.3 V	—
Heater Current	900 mA	—
Plate Resistance Approximate	29000 ohm	—
Transconductance	10200 uS	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage Minimum	5.7 V	—
Heater Voltage Maximum	6.9 V	—
HeaterCathodeVoltageMaximum	200 V	HeaterNegative
HeaterCathodeDCVoltageMaximum	100 V	HeaterPositive

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage Maximum	550 V	—
Screen Voltage Maximum	440 V	—
Plate Dissipation Maximum	19 W	—
Screen Dissipation Maximum	3.3 W	—
Cathode Current Maximum	90 mA	—
GridCircuitResistanceMaximum	0.3 Mohm	FixedBias
GridCircuitResistanceMaximum	1 Mohm	SelfBias
Plate Voltage	300 V	ClassA
Screen Voltage	300 V	ClassA
Grid Voltage	-10 V	ClassA
Plate Current	60 mA	ClassA
Load Resistance	3000 ohm	ClassA
Power Output	11 W	ClassA
Plate Voltage	450 V	TwoTubes;PushPull;ClassAB
Screen Voltage	400 V	TwoTubes;PushPull;ClassAB
Load Resistance Plate To Plate	10000 ohm	TwoTubes;PushPull;ClassAB
Power Output	28 W	TwoTubes;PushPull;ClassAB



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

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1971 RCA HB3 Binder 5 of 7

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

1971 RCA HB3 BINDER 5 OF 7

Section 1 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage nominal	6.3 V	—
Heater current nominal	800 mA	—
Plate Voltage	550 V	Published source row
Grid-No	2 V	Published source row

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-No (value 2)	440 V	Published source row
Cathode Current	90 mA	Published source row
Grid-No	2 W	Published source row
Grid-No (value 2)	3 W	Published source row
Grid-No (value 3)	3 W	Published source row
Plate Dissipation	19 W	Published source row
Plate Voltage	300 V	Published source row
Grid-No	2 V	Published source row
Grid-No (value 2)	300 V	Published source row
Grid-No.1 (Control-Grid) Voltage	-10 V	Published source row
Peak AF Grid-No.1 Voltage	10 V	Published source row
Max. -Signal Plate Current	75 mA	Published source row
Zero-Signal Grid-No	2 mA	Published source row
Zero-Signal Grid-No (value 2)	8 mA	Published source row
Max. -Signal Grid-No	2 mA	Published source row
Max. -Signal Grid-No (value 2)	15 mA	Published source row
Plate Resistance (Approx.)	29000 ohm	Published source row
Transconductance	10200 μS	Published source row
Effective Load Resistance	3000 ohm	Published source row
Total Harmonic Distortion	13 %	Published source row
Max.-Signal Power Output	11 W	Published source row
Plate Voltage	550 V	Published source row
Grid-No	2 V	Published source row
Grid-No (value 2)	440 V	Published source row
Cathode Current	90 mA	Published source row
Grid-No	2 W	Published source row
Grid-No (value 2)	3.3 W	Published source row
Plate Dissipation	19 W	Published source row
Voltage	300 V	Published source row
Voltage (value 2)	350 V	Published source row

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Voltage (value 3)	400 V	Published source row
Grid-No	2	Published source row
Voltage	300 V	Published source row
Voltage (value 2)	350 V	Published source row
Voltage (value 3)	350 V	Published source row
Grid-No.1 Voltage	-12.5 V	Published source row
Grid-No.1 Voltage (value 2)	-15.5 V	Published source row
Grid-No.1 Voltage (value 3)	-16 V	Published source row
to-Grid-No	1	Published source row
Voltage	25 V	Published source row
Voltage (value 2)	31 V	Published source row
Voltage (value 3)	32 V	Published source row
Current	74 mA	Published source row
Current (value 2)	72 mA	Published source row
Current (value 3)	64 mA	Published source row
Current	116 mA	Published source row
Current (value 2)	130 mA	Published source row
Current (value 3)	135 mA	Published source row
No	2 mA	Published source row
No (value 2)	10 mA	Published source row
No (value 3)	9.5 mA	Published source row
No	2 mA	Published source row
No (value 2)	28 mA	Published source row

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Voltage (.AC or DC)	6.3 V	Published source row
Voltage (.AC or DC) (value 2)	0.6 V	Published source row
Current at heater volts =	6.3 V	Published source row
Current at heater volts = (value 2)	0.8 V	Published source row

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
v olcage oI ei Cher the grid No	2	Published source row


SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1975 RCA RC30

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

1975 RCA RC30

Section 1 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak Heater-Cathode Voltage	200 V	AbsoluteValue
Average Heater-Cathode Voltage	100 V	AbsoluteValue
Typical Plate Voltage	300 V	ClassA
Typical Screen Voltage	300 V	ClassA
Grid No.1 Voltage	-10 V	ClassA
Zero-Signal Plate Current	60 mA	ClassA
Maximum-Signal Plate Current	75 mA	ClassA
Maximum-Signal Screen Current	15 mA	ClassA
Load Resistance	3000 ohm	ClassA

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Resistance	20000 ohm	ClassA
Transconductance	10200 uS	ClassA

TUBE TINKER

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

