



ELECTRONIC TUBE REFERENCE

6HG5

Power - Beam (NOT sweep) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

BEAMPOWER

Beam-power tube designed for television audio-output stages, providing power amplification for receiver sound systems.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	7
NOMINAL HEATER	6.3 V / 450 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Beam Power	
PLATE RESISTANCE	52000 Ω
TRANSCONDUCTANCE	0.0041 S
MAXIMUM PLATE VOLTAGE	330 V
MAXIMUM SCREEN VOLTAGE	330 V
MAXIMUM PLATE DISSIPATION	12 W
MAXIMUM SCREEN DISSIPATION	2 W
<i>Published maximum ratings and characteristic values promoted where applicable; additional table values retained in TUBE_SECTION_PARAMETER.</i>	

Beam-power tube for television audio-output stages.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1964 RMA EIA

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

1964 RMA EIA

Section 1 · Beam Power

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage	6.3 V	—
Heater Current	450 mA	—
Grid1 To Plate Capacitance	0.4 pF	—
Input Capacitance	8 pF	—
Output Capacitance	8.5 pF	—
Plate Resistance	52000 ohm	—
Transconductance	4100 uS	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	250 V	ClassA
Screen Voltage	250 V	ClassA
Grid Voltage	-12.3 V	ClassA
Plate Current	45 mA	ClassA
Screen Current	4.5 mA	ClassA
Load Resistance	5000 ohm	ClassA
Power Output	4.5 W	ClassA

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
Plate voltage	250 V	ClassA
Maximum plate voltage	330 V	—
Maximum screen-grid voltage	330 V	—
respect to cathode	200 V	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
respect to cathode	200 V	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
Plate Voltage	275 V	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
Grid-No.2 (Screen-Grid) Voltage	275 V	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
Grid-No.2 Input	2 mA	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
Plate Dissipation	12 mA	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
Max.-Signal Plate Current – published value 1	30 mA	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
Max.-Signal Plate Current – published value 2	47 mA	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
Max.-Signal Grid-No.2 Current – published value 1	4 mA	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
Max.-Signal Grid-No.2 Current – published value 2	7 mA	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Max.-Signal Power Output – published value 1	2 W	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
Max.-Signal Power Output – published value 2	4.5 W	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
For fixed-bias operation	0.1 mA	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
For cathode-bias operation	0.5 mA	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Voltage (AC or DC) – published value 1	6.3 V	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
Voltage (AC or DC) – published value 2	0.6 V	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
Current at heater volts = 6.3 – published value 1	6.3 V	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
Current at heater volts = 6.3 – published value 2	0.45 V	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
Heater volts = 6.3, plate	6.3 V	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
and grid-No.2 volts = 250,	250 V	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
Pin 1 -Grid No.1 – published value 1	1	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
Pin 1 -Grid No.1 – published value 2	4	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
Pin 2 -Cathode, – published value 1	2	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Pi n 2 -Cathode, – published value 2	5	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
Grid No.3	6	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
Pin 3 –Heater – published value 1	3	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
Pin 3 –Heater – published value 2	7	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
Plate Voltage – published value 1	180 V	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
Plate Voltage – published value 2	250 V	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
Grid-No.2 Voltage – published value 1	180 V	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
Grid-No.2 Voltage – published value 2	250 V	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
Grid-No.1 (Control -Grid) Voltage – published value 1	-8.5 V	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
Grid-No.1 (Control -Grid) Voltage – published value 2	-12.5 V	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
Peak AF Grid-No.1 Voltage – published value 1	8.5 V	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
Peak AF Grid-No.1 Voltage – published value 2	12.5 V	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
Zero-Signal Plate Current – published value 1	29 mA	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
Zero-Signal Plate Current – published value 2	45 mA	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Zero-Signal Grid-No.2 Current – published value 1	3 mA	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
Zero-Signal Grid-No.2 Current – published value 2	4.5 mA	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
Plate Resistance (Approx.) – published value 1	58000 ohm	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
Plate Resistance (Approx.) – published value 2	52000 ohm	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
Transconductance – published value 1	3700	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
Transconductance – published value 2	4100	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
Load Resistance – published value 1	5500 ohm	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
Load Resistance – published value 2	5000 ohm	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
GRID-No.2 VOLTS =250	250 V	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
PLATE (I _y) OR GRID-No.2 (I-2) MILLIAMPERES	2 mA	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
E f = 6.3 VOLTS PLATE VOLTS=250 GRID-N!2 VOLTS=250 – published value 1	6.3 V	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
E f = 6.3 VOLTS PLATE VOLTS=250 GRID-N!2 VOLTS=250 – published value 2	2 V	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
E f = 6.3 VOLTS PLATE VOLTS=250 GRID-N!2 VOLTS=250 – published value 3	2 V	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
E f = 6.3 VOLTS PLATE VOLTS=250 GRID-N!2 VOLTS=250 – published value 4	250 V	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
GRID-N•I VOLTS= -12.5 SIGNAL VOLTS (RMS) =6.6 – published value 1	-12.5 V	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
GRID-N•I VOLTS= -12.5 SIGNAL VOLTS (RMS) =6.6 – published value 2	6.6 V	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
GRID –No 2	2	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.

TUBE TINKER

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