



ELECTRONIC TUBE REFERENCE

6DB5

Power - TV Vertical Output electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

BEAMPOWER

Miniature beam pentode intended primarily for television vertical-deflection or audio power-amplifier service.

GENERAL CHARACTERISTICS

BASE DESIGNATION	9GR	BASE PINS	9
NOMINAL HEATER	6.3 V / 1.2 A	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

9GR - TERMINAL PINOUT

TERMINAL	SECTION	ELEMENT	STATUS
PIN1	–	G2 – Screen Grid	CONNECTED
PIN2	–	G3 – Suppressor Grid	CONNECTED
PIN2	–	K – Cathode	CONNECTED
PIN3	–	G1 – Control Grid	CONNECTED
PIN4	–	H – Heater	CONNECTED
PIN5	–	H – Heater	CONNECTED
PIN6	–	G1 – Control Grid	CONNECTED
PIN7	–	G3 – Suppressor Grid	CONNECTED
PIN7	–	K – Cathode	CONNECTED

SECTION RATINGS

SECTION1 Beam Power	
PLATE RESISTANCE	28000 Ω
TRANSCONDUCTANCE	0.008 S
MAXIMUM PLATE VOLTAGE	300 V
MAXIMUM SCREEN VOLTAGE	150 V
MAXIMUM PLATE DISSIPATION	10 W
MAXIMUM SCREEN DISSIPATION	1.25 W
MAXIMUM CATHODE CURRENT	55 mA
<i>Published promoted values applied where applicable; additional ratings and operating data retained as parameters.</i>	

Miniature beam pentode primarily for vertical-deflection or audio-amplifier service.



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
Peak Positive Plate Voltage	2000 V	Vertical deflection; absolute maximum
Power Output	3.8 W	Class A; 200 V plate
Plate Voltage	225 V	Triode connected

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-Plate Capacitance	0.2 pF	Maximum



SOURCE OPERATING CONDITIONS

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1971 RCA HB3 Binder 4 of 7

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

1971 RCA HB3 BINDER 4 OF 7

Section 1 · Beam Power

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Voltage (AC or DC)	63 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Current – published value 1	1 A	Published datasheet value; multiple values represent separate source-table limits or conditions.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Current – published value 2	2 A	Published datasheet value; multiple values represent separate source-table limits or conditions.
Grid No.1 to plate – published value 1	0	Published datasheet value; multiple values represent separate source-table limits or conditions.
Grid No.1 to plate – published value 2	2	Published datasheet value; multiple values represent separate source-table limits or conditions.
grid No.2, and heater	13	Published datasheet value; multiple values represent separate source-table limits or conditions.
grid No.2, and heater	8	Published datasheet value; multiple values represent separate source-table limits or conditions.
Pin 1-Grid No.2 – published value 1	1	Published datasheet value; multiple values represent separate source-table limits or conditions.
Pin 1-Grid No.2 – published value 2	7	Published datasheet value; multiple values represent separate source-table limits or conditions.
Pin 2-Cathode,	2	Published datasheet value; multiple values represent separate source-table limits or conditions.
Grid No.3	8	Published datasheet value; multiple values represent separate source-table limits or conditions.
Pin 3-Grid No.1	3	Published datasheet value; multiple values represent separate source-table limits or conditions.
Pin 4 -Heater	4	Published datasheet value; multiple values represent separate source-table limits or conditions.
Pin 5-Heater – published value 1	5	Published datasheet value; multiple values represent separate source-table limits or conditions.
Pin 5-Heater – published value 2	9	Published datasheet value; multiple values represent separate source-table limits or conditions.
Pin 6 -Grid No.1	6	Published datasheet value; multiple values represent separate source-table limits or conditions.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Supply Voltage – published value 1	110 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Plate Supply Voltage – published value 2	200 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Grid-No.2 Supply Voltage – published value 1	110 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Grid-No.2 Supply Voltage – published value 2	125 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Grid-No.1 (Control-grid) Voltage	-7.5 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Cathode Resistor	180 ohm	Published datasheet value; multiple values represent separate source-table limits or conditions.
Peak AF Grid-No.1 Voltage – published value 1	7.5 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Peak AF Grid-No.1 Voltage – published value 2	8.5 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Zero-Signal Plate Current – published value 1	49 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
Zero-Signal Plate Current – published value 2	46 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
Zero-Signal Grid-No.2 Current – published value 1	4 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
Zero-Signal Grid-No.2 Current – published value 2	2.2 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
Plate Resistance (Approx.) – published value 1	13000 ohm	Published datasheet value; multiple values represent separate source-table limits or conditions.
Plate Resistance (Approx.) – published value 2	28000 ohm	Published datasheet value; multiple values represent separate source-table limits or conditions.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance – published value 1	8000	Published datasheet value; multiple values represent separate source-table limits or conditions.
Transconductance – published value 2	8000	Published datasheet value; multiple values represent separate source-table limits or conditions.
Load Resistance – published value 1	2000 ohm	Published datasheet value; multiple values represent separate source-table limits or conditions.
Load Resistance – published value 2	4000 ohm	Published datasheet value; multiple values represent separate source-table limits or conditions.

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
PLATE VOLTAGE	300 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
GRID-No.2 (SCREEN-GRID) VOLTAGE	150 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
GRID-No.2 INPUT	1.25 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
PLATE DISSIPATION	10 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
Heater negative with respect to cathode	200 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Heater positive with respect to cathode	2006 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Max.-Signal Plate Current – published value 1	50 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
Max.-Signal Plate Current – published value 2	47 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
Max.-Signal Grid-No.2 Current – published value 1	10 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Max.-Signal Grid-No.2 Current – published value 2	8.5 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
Max.-Signal Power Output – published value 1	2.1 W	Published datasheet value; multiple values represent separate source-table limits or conditions.
Max.-Signal Power Output – published value 2	3.8 W	Published datasheet value; multiple values represent separate source-table limits or conditions.
For fixed-bias operation – published value 1	0 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
For fixed-bias operation – published value 2	1 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
For cathode-bias operation	2.2 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
DC PLATE VOLTAGE	300 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
DC GRID-No.2 (SCREEN-RID) VOLTAGE	150 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
(CONTROL-GRID) VOLTAGE	250 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Peak	200 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
GRID-No.2 INPUT – published value 1	1 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
GRID-No.2 INPUT – published value 2	25 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
respect to cathode	200 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
respect to cathode	200 V	Published datasheet value; multiple values represent separate source-table limits or conditions.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
For fixed-bias operation	0.1 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.

TUBE TINKER

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