

ELECTRONIC TUBE REFERENCE

6HB6

Power - TV Vertical Output electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
PENTODE

Nine-pin miniature power pentode designed for vertical-deflection amplifier service in television receivers using wide-angle picture tubes.

GENERAL CHARACTERISTICS

BASE DESIGNATION	9NW	BASE PINS	9
NOMINAL HEATER	6.3 V / 760 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

9NW - TERMINAL PINOUT

TERMINAL	SECTION	ELEMENT	STATUS
PIN1	–	K – Cathode	CONNECTED
PIN2	–	G1 – Control Grid	CONNECTED
PIN3	–	G3 – Suppressor Grid	CONNECTED
PIN4	–	H – Heater	CONNECTED
PIN5	–	H – Heater	CONNECTED
PIN6	–	G2 – Screen Grid	CONNECTED
PIN7	–	P – Plate (Anode)	CONNECTED
PIN8	–	G2 – Screen Grid	CONNECTED
PIN9	–	G3 – Suppressor Grid	CONNECTED

SECTION RATINGS

SECTION1 Pentode	
PLATE RESISTANCE	24000 Ω
TRANSCONDUCTANCE	0.02 S
AMPLIFICATION FACTOR	33
MAXIMUM PLATE VOLTAGE	350 V
MAXIMUM SCREEN VOLTAGE	330 V
MAXIMUM PLATE DISSIPATION	10 W
MAXIMUM SCREEN DISSIPATION	2 W
<i>Vertical-deflection service.</i>	

The 6HB6 is a 9-pin miniature power pentode designed for vertical-deflection amplifier service in television receivers using wide-angle picture tubes.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1961 Tung Sol

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

1961 TUNG SOL

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	50 V	Published operating/characteristic table
Screen Voltage	300 V	Published operating/characteristic table
Grid Voltage	1 V	Published operating/characteristic table
Cathode Resistor	100 ohm	Published operating/characteristic table

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Current	40 mA	Published operating/characteristic table
Screen Current	6.2 mA	Published operating/characteristic table
Transconductance	20000 uS	Published operating/characteristic table
Plate Resistance	24 ohm	Published operating/characteristic table



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1966 Tung Sol Electronic Tubes 2 of 4

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

1966 TUNG SOL ELECTRONIC TUBES 2 OF 4

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Positive plate pulse voltage	2500 V	VerticalDeflection;Pulse
Plate voltage	250 V	VerticalDeflection

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Screen voltage	125 V	VerticalDeflection
Plate current	40 mA	VerticalDeflection
Screen current	4.2 mA	VerticalDeflection

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Instantaneous plate current	150 mA	Plate60V;Screen250V;Grid1=0V


SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1968 General Electric Co

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

1968 GENERAL ELECTRIC CO

Section 1 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak Positive Pulse Plate Voltage	2500 V	VerticalDeflection


SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

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 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	250 V	ClassA
Maximum plate voltage	330 V	—
Maximum screen-grid voltage	330 V	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
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.
DC PLATE VOLTAGE	350 V	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
PEAK POSITIVE-PULSE PLATE VOLTAGE ^a	2500 V	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
DC GRID-No.2 (SCREEN-GRID) VOLTAGE	300 V	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
GRID No.1 (CONTROL-GRID) VOLTAGE	-100 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	10 mA	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
For fixed-bias operation	1 mA	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
For cathode-bias operation	2.2 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.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Current at heater volts = 6.3 – published value 2	0.76 V	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
Grid No.1 to plate	0.18	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
grid No.2, and heater	13	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
grid No.2, and .heater	8	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
Plate Supply Voltage – published value 1	60 V	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
Plate Supply Voltage – published value 2	250 V	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
Plate Supply Voltage – published value 3	250 V	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
Grid-No.2 Supply Voltage – published value 1	250 V	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
Grid-No.2 Supply Voltage – published value 2	125 V	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
Grid-No.2 Supply Voltage – published value 3	250 V	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
Grid-No.1 Voltage	0 V	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
Cathode Resistor – published value 1	33 ohm	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
Cathode Resistor – published value 2	100 ohm	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
Mu-Factor, Grid No.2 to Grid No.1	33	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Resistance (Approx) – published value 1	28000 ohm	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
Plate Resistance (Approx) – published value 2	24000 ohm	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
Transconductance – published value 1	24000	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
Transconductance – published value 2	20000	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
Plate Current – published value 1	150 mA	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
Plate Current – published value 2	40 mA	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
Plate Current – published value 3	40 mA	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
Grid-No.2 Current – published value 1	37 mA	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
Grid-No.2 Current – published value 2	4.2 mA	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
Grid-No.2 Current – published value 3	6.2 mA	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
for plate $\mu_a = 100$ – published value 1	100 V	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
for plate $\mu_a = 100$ – published value 2	-6.4 V	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
for plate $\mu_a = 100$ – published value 3	-13 V	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
Pin 1 -Cathode – published value 1	1	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Pin 1 -Cathode – published value 2	6	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
Pin 2 -Grid No.1 – published value 1	2	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
Pin 2 -Grid No.1 – published value 2	7	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
Pin 3 -Grid No.3 – published value 1	3	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
Pin 3 -Grid No.3 – published value 2	8	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
Pin 4 -Heater – published value 1	4	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
Pin 4 -Heater – published value 2	9	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.
Pin 5 -Heater	5	Published datasheet value; multiple values on one source row represent separate limits or operating conditions.

TUBE TINKER

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