

ELECTRONIC TUBE REFERENCE

6DG6GT

Power - Beam (NOT sweep) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
BEAMPOWER

Heater-cathode beam pentode power amplifier designed primarily for audio-output service in receiving and amplifier equipment.

GENERAL CHARACTERISTICS

BASE DESIGNATION	7S	BASE PINS	7
NOMINAL HEATER	6.3 V / 1.2 A	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

7S - TERMINAL PINOUT

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

SECTION RATINGS

SECTION1 Beam Power	
PLATE RESISTANCE	28000 Ω
TRANSCONDUCTANCE	0.008 S
MAXIMUM PLATE VOLTAGE	200 V
MAXIMUM SCREEN VOLTAGE	125 V
MAXIMUM PLATE DISSIPATION	10 W
MAXIMUM SCREEN DISSIPATION	1.25 W
<i>Published promoted values applied where applicable; additional ratings and operating data retained as parameters.</i>	

The 6DG6GT is a heater-cathode beam pentode power amplifier intended primarily as an audio output tube.



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
Power Output	3.8 W	Class A; 200 V plate
Plate Current	46 mA	200 V plate, 125 V screen
Load Resistance	4000 ohm	200 V plate



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 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	200 V	Published operating/characteristic table
Screen Voltage	125 V	Published operating/characteristic table

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	8000 μ S	Published operating/characteristic table
Plate Resistance	28000 ohm	Published operating/characteristic table



1965 Westinghouse Data Book

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

1965 WESTINGHOUSE DATA BOOK

Section 1 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Typical plate voltage	200 V	ClassA
Typical screen voltage	150 V	ClassA

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	20000 ohm	—

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Application	Audio output amplifier	—



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

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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 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	200 V	ClassA1
Screen voltage	125 V	ClassA1
Plate current	46 mA	ClassA1
Maximum-signal power output	3.8 W	ClassA1

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

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	6.3 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Current	1.2 A	Published datasheet value; multiple values represent separate source-table limits or conditions.
Grid No.1 to plate	0.6	Published datasheet value; multiple values represent separate source-table limits or conditions.
grid No.2, and heater	15	Published datasheet value; multiple values represent separate source-table limits or conditions.
grid No.2, and heater	10	Published datasheet value; multiple values represent separate source-table limits or conditions.
Pin 11 - No Connec – published value 1	11	Published datasheet value; multiple values represent separate source-table limits or conditions.
Pin 11 - No Connec – published value 2	5	Published datasheet value; multiple values represent separate source-table limits or conditions.
tion	7	Published datasheet value; multiple values represent separate source-table limits or conditions.
Pin 2 -Heater – published value 1	2	Published datasheet value; multiple values represent separate source-table limits or conditions.
Pin 2 -Heater – published value 2	8	Published datasheet value; multiple values represent separate source-table limits or conditions.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Pin 3 -Plate	3	Published datasheet value; multiple values represent separate source-table limits or conditions.
Pin 4 -Grid No.2	4	Published datasheet value; multiple values represent separate source-table limits or conditions.
Plate Voltage – published value 1	110 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Plate Voltage – published value 2	200 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Grid-No.2 Voltage – published value 1	110 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Grid-No.2 Voltage – published value 2	125 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Grid-No.1 (Control-Grid) Voltage – published value 1	-7.5 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Grid-No.1 (Control-Grid) Voltage – published value 2	0 V	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.
ax.-Signal Plate Current – published value 1	50 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
ax.-Signal Plate Current – published value 2	47 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
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.
ax.-Signal Grid-No.2 Current – published value 1	10 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
ax.-Signal Grid-No.2 Current – published value 2	8.5 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.
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.
ax.-Signal Power Output – published value 1	2.1 W	Published datasheet value; multiple values represent separate source-table limits or conditions.
ax.-Signal Power Output – published value 2	3 W	Published datasheet value; multiple values represent separate source-table limits or conditions.

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
PLATE VOLTAGE	200 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
GRID-No.2 (SCREEN-GRID) VOLTAGE	125 V	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.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
GRID-N o.2 INPUT – published value 1	1 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
GRID-N o.2 INPUT – published value 2	25 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
Heater negative with respect to cathode	90 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Heater positive with respect to cathode	90 V	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	0.5 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.



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

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid No.1-to-plate capacitance	0.6 pF	—
Grid No.1-to-other-electrodes capacitance	15 pF	—
Plate-to-other-electrodes capacitance	10 pF	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate supply voltage	110 V	ClassA;PlateSupply=110V
Screen-grid supply voltage	110 V	ClassA;PlateSupply=110V
Zero-signal plate current	49 mA	ClassA;PlateSupply=110V
Zero-signal screen-grid current	4 mA	ClassA;PlateSupply=110V
Plate resistance	13000 ohm	ClassA;PlateSupply=110V
Load resistance	2000 ohm	ClassA;PlateSupply=110V
Maximum-signal power output	2.1 W	ClassA;PlateSupply=110V
Plate supply voltage	200 V	ClassA;PlateSupply=200V
Screen-grid supply voltage	125 V	ClassA;PlateSupply=200V
Zero-signal plate current	46 mA	ClassA;PlateSupply=200V
Zero-signal screen-grid current	2.2 mA	ClassA;PlateSupply=200V
Plate resistance	28000 ohm	ClassA;PlateSupply=200V
Load resistance	4000 ohm	ClassA;PlateSupply=200V
Maximum-signal power output	3.8 W	ClassA;PlateSupply=200V