

ELECTRONIC TUBE REFERENCE

6L6G

Power - Beam (NOT sweep) electronic tube

CONSOLIDATED TECHNICAL DATA
1 SECTION
CONSTRUCTION
BEAMPOWER

Glass-envelope 6L6-family beam-power tube for audio-frequency output stages, supporting Class A and push-pull operation with substantial loudspeaker-driving capability.

GENERAL CHARACTERISTICS

BASE DESIGNATION	7AC	BASE PINS	8
NOMINAL HEATER	6.3 V / 900 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

7AC - TERMINAL PINOUT

TERMINAL	SECTION	ELEMENT	STATUS
PIN1 – Pin 1	–	–	NC · verified
PIN2 – Pin 2	–	H – Heater	CONNECTED · verified
PIN3 – Pin 3	A	P – Plate (Anode)	CONNECTED · verified
PIN4 – Pin 4	A	G2 – Screen Grid	CONNECTED · verified
PIN5 – Pin 5	A	G1 – Control Grid	CONNECTED · verified
PIN7 – Pin 7	–	H – Heater	CONNECTED · verified
PIN8 – Pin 8	A	BP – Beam-Forming Plate	CONNECTED · verified
PIN8 – Pin 8	A	K – Cathode	CONNECTED · verified

SECTION RATINGS

SECTION1 Beam Power	
PLATE RESISTANCE	35000 Ω
TRANSCONDUCTANCE	0.0053 S
MAXIMUM PLATE VOLTAGE	360 V
MAXIMUM SCREEN VOLTAGE	270 V
MAXIMUM PLATE DISSIPATION	19 W
MAXIMUM SCREEN DISSIPATION	2.5 W
<i>Published ratings and characteristics promoted from the approved source.</i>	

The 6L6G is a BeamPower intended for beam-power audio output service. Published ratings, characteristics and typical operating data from the supplied datasheet were captured.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1937 Raytheon Radio Receiving Tubes

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

1937 RAYTHEON RADIO RECEIVING TUBES

Section 1 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	400 V	Published datasheet rating
Plate voltage	250 V	ClassA
Maximum screen dissipation	3.5 W	BeamPower
Class-A fixed-bias plate voltage	375 V	ClassA FixedBias
Push-pull plate voltage	250 V	ClassA PushPull TwoTubes
Push-pull power output	14.5 W	ClassA PushPull TwoTubes
Class-AB push-pull plate voltage	400 V	ClassAB PushPull TwoTubes

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	22500 ohm	Published datasheet characteristic
Transconductance	6000 μS	Published datasheet characteristic
Heater voltage	6.3 V	Published heater rating
Heater current	900 mA	Published heater rating
Class-A fixed-bias plate resistance	22500 ohm	ClassA FixedBias
Class-A fixed-bias transconductance	6000 μS	ClassA FixedBias

1948 Brimar Radio Valve Manual

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

1948 BRIMAR RADIO VALVE MANUAL

Section 1 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Power output single-ended	11 W	OneTube
Power output push-pull	24 W	PushPull

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Triode-connected operation	Published	TriodeConnection

[SOURCE DATA APPENDIX](#)

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

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Service	Audio power amplifier	PushPull

[SOURCE DATA APPENDIX](#)

1958 Brimar Radio Valve No 7

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

1958 BRIMAR RADIO VALVE NO 7

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Power output single-ended	11 W	OneTube
Power output push-pull	24 W	PushPull



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

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195X General Electric Essential Characteristics

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

195X GENERAL ELECTRIC ESSENTIAL CHARACTERISTICS

Section 1 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	250 V	ClassA
Screen voltage	250 V	ClassA
Control-grid voltage	-14 V	ClassA
Plate current	72 mA	ClassA
Screen current	5 mA	ClassA

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	22500 Ω	ClassA
Transconductance	6000 μS	ClassA



SOURCE DATA APPENDIX

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	300 V	ClassA PentodeConnection
Screen Voltage	200 V	ClassA PentodeConnection
Plate Voltage	250 V	ClassA TriodeConnection
Plate Voltage	360 V	ClassAB PushPull PentodeConnection
Screen Voltage	270 V	ClassAB PushPull PentodeConnection

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Current	48 mA	ClassA PentodeConnection
Power Output	6.5 W	ClassA PentodeConnection
Power Output	1.4 W	ClassA TriodeConnection



SOURCE DATA APPENDIX

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	250 V	ClassA
Screen voltage	250 V	ClassA
Power_output	6.5 W	ClassA,OneTube
Power_output	26.5 W	PushPull,TwoTubes

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	5300 μ S	ClassA
Plate resistance	35000 ohm	ClassA
Plate_current	72 mA	ClassA,OneTube
Amplification_factor	8	TriodeConnection

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Input capacitance	3 pF	Section1
Output capacitance	3 pF	Section1



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 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage nominal	6.3 V	—
Heater current	900 mA	—
Voltage	63 V	Published source row
Current	9 A	Published source row
PLATE VOLTAGE	360 V	Published source row
GRID-No	2 V	Published source row
GRID-No (value 2)	270 V	Published source row
PLATE DISSIPATION	19 W	Published source row
GRID-No	2 W	Published source row
GRID-No (value 2)	2.5 W	Published source row
Plate Voltage	200 V	Published source row
Plate Voltage (value 2)	250 V	Published source row

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage (value 3)	300 V	Published source row
Grid-No	2 V	Published source row
Grid-No (value 2)	200 V	Published source row
Grid-No (value 3)	250 V	Published source row
Grid-No.1 Voltage	-11.5 V	Published source row
Grid-No.1 Voltage (value 2)	-14 V	Published source row
Grid-No.1 Voltage (value 3)	-12.5 V	Published source row
Peak AF Grid-No.1 Voltage	11.5 V	Published source row
Peak AF Grid-No.1 Voltage (value 2)	14 V	Published source row
Peak AF Grid-No.1 Voltage (value 3)	12.5 V	Published source row
Zero-Signal Plate Current	52	Published source row
Zero-Signal Plate Current (value 2)	72	Published source row
Zero-Signal Plate Current (value 3)	48	Published source row
Max.-Signal Plate Current	57	Published source row
Max.-Signal Plate Current (value 2)	79	Published source row
Max.-Signal Plate Current (value 3)	55	Published source row
Signal Grid-No	2	Published source row
Current	3.5	Published source row
Current (value 2)	5	Published source row
Current (value 3)	2.5	Published source row
Max.-Signal Grid-No	2	Published source row

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
grid No	3	Published source row
grid No (value 2)	2	Published source row
grid No	3	Published source row
grid No (value 2)	2	Published source row
^e PLATE VOLTAGE	275 V	Published source row

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
PLATE DISSIPATION	19 W	Published source row

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	250 V	Published source row
Plate Voltage (value 2)	250 V	Published source row
Voltage	-20 V	Published source row
Peak AF Grid-No.1 Voltage	20 V	Published source row
Peak AF Grid-No.1 Voltage (value 2)	20 V	Published source row
ax.-Signal Plate Current	44 mA	Published source row
ax.-Signal Plate Current (value 2)	42 mA	Published source row
Amplification Factor	8	Published source row
Plate Resistance (Approx.)	1700 ohm	Published source row
Transconductance	4700 μS	Published source row
Load Resistance	5000 ohm	Published source row
Load Resistance (value 2)	6000 ohm	Published source row
Total Harmonic Distortion	5 %	Published source row
Total Harmonic Distortion (value 2)	6 %	Published source row
ax.-Signal Power Output	1.4 W	Published source row
ax.-Signal Power Output (value 2)	1.3 W	Published source row



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

2026 Tungsol Rebrand

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

2026 TUNGSOL REBRAND

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Power Output	—	HI-FI audio output; Class A/push-pull data published

TUBE TINKER

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