



ELECTRONIC TUBE REFERENCE

6550

Power - Beam (NOT sweep) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

BEAMPOWER

High-power beam tetrode designed for audio-frequency output amplification, widely used in high-fidelity and professional amplifiers requiring substantial Class-AB power.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	8
NOMINAL HEATER	6.3 V / 1.6 A	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Beam Power	
PLATE RESISTANCE	15000 Ω
TRANSCONDUCTANCE	0.011 S
AMPLIFICATION FACTOR	8
MAXIMUM PLATE VOLTAGE	660 V
MAXIMUM SCREEN VOLTAGE	440 V
MAXIMUM PLATE DISSIPATION	42 W
MAXIMUM SCREEN DISSIPATION	10 W
MAXIMUM CATHODE CURRENT	190 mA
<i>Promoted from published typical characteristics and limiting values in 6550.pdf; repeated identical physical sections are compressed where applicable.</i>	

Industrial beam power tube for output stages of high-fidelity audio amplifiers.



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
Heater voltage	6.3 V	Nominal
Heater current	1.6 A	Nominal
Plate voltage	250 V	Published operating table; OperatingPoint1
Screen voltage	250 V	Published operating table; OperatingPoint1
Maximum intermittent screen dissipation	10 W	MusicOrSpeechPeaks

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate current	140 mA	Published operating table; OperatingPoint1



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1966 Tung Sol Electronic Tubes 4 of 4

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

1966 TUNG SOL ELECTRONIC TUBES 4 OF 4

Section 1 · Beam Power

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
VOLTAGE OPERATION – published value 1	6.3 V	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
VOLTAGE OPERATION – published value 2	0.6 V	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
PLATE VOLTAGE, DC	660 V	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
GRID 1 VOLTAGE, DC – published value 1	-300 V	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
GRID 1 VOLTAGE, DC – published value 2	0 V	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
PLATE DISSIPATION	42 W	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
CATHODE CURRENT, DC	190 mA	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
FIXED BIAS	50 ohm	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
SELF BIAS	250 ohm	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
BULB TEMPERATURE	250 C	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
PLATE VOLTAGE	250 V	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
GRID 2 VOLTAGE	250 V	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
GRID 1 VOLTAGE	-14 V	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
PLATE CURRENT	140 mA	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
GRID 2 CURRENT	12 mA	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
PLATE RESISTANCE, APPROX.	15000 ohm	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
TRIODE AMPLIFICATION FACTOR	8	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
GRID 1 VOLTAGE FOR 1 MA PLATE CURRENT	-40 V	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
PLATE VOLTAGE, DC – published value 1	250 V	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
PLATE VOLTAGE, DC – published value 2	400 V	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
GRID 2 VOLTAGE, OC – published value 1	250 V	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
GRID 2 VOLTAGE, OC – published value 2	225 V	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
GRID 1 VOLTAGE, DC – published value 1	-14 V	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
GRID 1 VOLTAGE, DC – published value 2	-16.5 V	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
PEAK SIGNAL VOLTAGE – published value 1	14 V	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
PEAK SIGNAL VOLTAGE – published value 2	16.5 V	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
ZERO-SIGNAL PLATE CURRENT, DC – published value 1	140 mA	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.



1971 RCA HB3 Binder 3 of 7

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

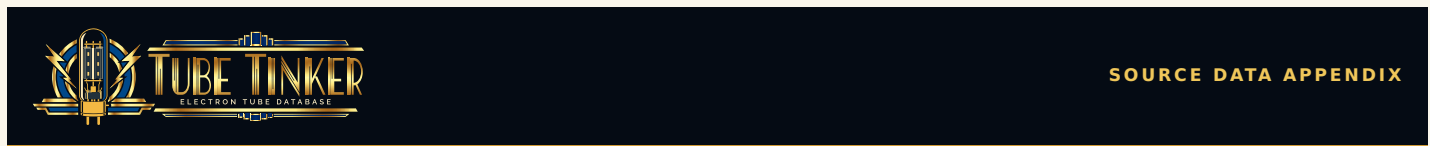
1971 RCA HB3 BINDER 3 OF 7

Section 1 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	Nominal
Heater current	1.6 A	Nominal
Maximum plate voltage	600 V	Promoted published value
Maximum screen voltage	400 V	Promoted published value
Maximum plate dissipation	35 W	Promoted published value
Maximum screen dissipation	6 W	Promoted published value
Maximum cathode current	175 mA	Promoted published value
Voltage (AC or DC)	0.6 V	Heater Characteristics and Ratings (Design-Center Values]:
Current at heater volts =	600 V	Heater Characteristics and Ratings (Design-Center Values]:
respect to cathode	300 V	Heater Characteristics and Ratings (Design-Center Values]:
respect to cathode	200 V	Heater Characteristics and Ratings (Design-Center Values]:
Plate Voltage	400 V	Characteristics, Class A1 Amplifier:
Grid-No.2 Voltage	225 V	Characteristics, Class A1 Amplifier:
Grid-No.1 Voltage	-16.5 V	Characteristics, Class A1 Amplifier:
Plate Resistance (Approx)	27000 ohm	Characteristics, Class A1 Amplifier:
Transconductance	9000 uS	Characteristics, Class A1 Amplifier:
Plate Current	87 mA	Characteristics, Class A1 Amplifier:
Grid-No.2 Current	4 mA	Characteristics, Class A1 Amplifier:
for plate ma. =	35 V	Characteristics, Class A1 Amplifier:
PLATE VOLTAGE.	600 V	Maximum Ratings, Design-Center Values:
GRID-No.2 (SCREEN-GRID) VOLTAGE	400 V	Maximum Ratings, Design-Center Values:
CATHODE CURRENT	175 mA	Maximum Ratings, Design-Center Values:

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
GRID-No.2 INPUT	6 W	Maximum Ratings, Design-Center Values:
PLATE DISSIPATION	35 W	Maximum Ratings, Design-Center Values:
Plate Voltage	400 V	Typical Operation and Characteristics:

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	12000 ohm	Promoted published value
Transconductance	11000 uS	Promoted published value



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

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid No.1 to plate	0.85 pF	Other
For fixed-bias operation	0.05 megohm	MaximumCircuitValues
For cathode-bias operation	0.25 megohm	MaximumCircuitValues
Plate Voltage	600 V	MaximumRatings
Grid-No. 2	400 V	MaximumRatings
Negative-bias value	300 V	MaximumRatings
Positive-bias value	0 V	MaximumRatings
Cathode Current	175 mA	MaximumRatings
Grid-No.2 Input	6 W	MaximumRatings
Plate Dissipation	35 W	MaximumRatings
Plate Voltage	250 V	TypicalOperation;PublishedValue1
Plate Voltage	400 V	TypicalOperation;PublishedValue2
Grid-No.2 Voltage	250 V	TypicalOperation;PublishedValue1
Grid-No.2 Voltage	225 V	TypicalOperation;PublishedValue2

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-No.1 Voltage	-14 V	TypicalOperation;PublishedValue1
Grid-No.1 Voltage	-16.5 V	TypicalOperation;PublishedValue2
Peak AF Grid-No.1 Voltage	14 V	TypicalOperation;PublishedValue1
Peak AF Grid-No.1 Voltage	16.5 V	TypicalOperation;PublishedValue2
Zero-Signal Plate Current	140 mA	TypicalOperation;PublishedValue1
Zero-Signal Plate Current	87 mA	TypicalOperation;PublishedValue2
Max. -Signal Plate Current	150 mA	TypicalOperation;PublishedValue1
Max. -Signal Plate Current	105 mA	TypicalOperation;PublishedValue2
Zero-Signal Grid-No.2 Current	12 mA	TypicalOperation;PublishedValue1
Zero-Signal Grid-No.2 Current	4 mA	TypicalOperation;PublishedValue2
Max. -Signal Grid-No.2 Current	28 mA	TypicalOperation;PublishedValue1
Max. -Signal Grid-No.2 Current	18 mA	TypicalOperation;PublishedValue2



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

2026 JJ Electronic

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

2026 JJ ELECTRONIC

Section 1 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Uf	6.3 V	Published value
If	1.6 A	Published value
Ug1	-300 V	Published value

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Ua	250 V	Published value
Ug2	250 V	Published value

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Ug1	-14 V	Published value
Ia	140 mA	Published value
Ig2	12 mA	Published value
S	11800 μ S	Published value

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
cg1	14 pF	Published value
ca	12 pF	Published value
ca/g1	0.85 pF	Published value



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

2026 Sovtek

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

2026 SOVTEK
Section 1 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Power Output	20 W	Plate 400 V; Screen 225 V; ClassA;TetrodeConnection



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

Section 1 · Beam Power

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Power Output	—	HI-FI audio power output