



ELECTRONIC TUBE REFERENCE

6661

Voltage - Pentode Sharp Cutoff (single) electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

PENTODE

Industrial sharp-cutoff pentode designed for RF amplification in mobile and high-frequency wide-band equipment. Low heater-current drain supports communications equipment where power consumption and broadband signal performance are both important.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	7
NOMINAL HEATER	6.3 V / 150 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Pentode	
PLATE RESISTANCE	1400000 Ω
TRANSCONDUCTANCE	0.0046 S
MAXIMUM PLATE VOLTAGE	330 V
MAXIMUM SCREEN VOLTAGE	150 V
MAXIMUM PLATE DISSIPATION	3.3 W
MAXIMUM SCREEN DISSIPATION	0.75 W
MAXIMUM CATHODE CURRENT	20 mA
<i>Alias/co-designation of 6BH6;</i>	

Industrial sharp-cutoff pentode for RF amplification in mobile, high-frequency wide-band equipment with low heater-current drain.



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 · Pentode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Resistance	1400000 ohm	—
Transconductance	4600 μ S	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum Plate Voltage	330 V	—
Maximum Screen Voltage	330 V	—
Maximum Plate Dissipation	3.3 W	—
Maximum Screen Dissipation	0.55 W	—



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1960 RCA Industrial and Communications Types

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1960 RCA INDUSTRIAL AND COMMUNICATIONS TYPES

Section 1 · Pentode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage	6.3 V	—
Heater Current	150 mA	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
EquivalentType	6BH6	RenewalUse



SOURCE OPERATING CONDITIONS

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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
Heater voltage	6.3 V	Nominal
Heater current	150 mA	Nominal
Plate voltage	330 V	Published operating table; OperatingPoint1
Plate voltage	250 V	Published operating table; OperatingPoint1
Screen voltage	150 V	Published operating table; OperatingPoint1

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate current	7.4 mA	Published operating table; OperatingPoint1
Transconductance	4600 μ S	Published operating table; OperatingPoint1



SOURCE OPERATING CONDITIONS

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1965 Sylvania Electronic Tubes Vol3

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

1965 SYLVANIA ELECTRONIC TUBES VOL3

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage	6.3 V	—
Heater Current	150 mA	—
EquivalentElectricalType	6BH6	—
Grid1ToPlateCapacitanceMaximum	0.035 pF	—
Input Capacitance	5.5 pF	—
Output Capacitance	5 pF	—
Transconductance	4900 uS	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	250 V	ClassA
Screen Voltage	100 V	ClassA



SOURCE DATA APPENDIX

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

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.
VOLTAGE OPERATION – published value 2	1.3 V	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
GRID 2 SUPPLY VOLTAGE	330 V	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
POSITIVE DC GRID 1 VOLTAGE	0 V	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
NEGATIVE DC GRID 1 VOLTAGE	55 V	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
PLATE DISSIPATION	3.3 W	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
GRID 2 DISSIPATION	0.55 W	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 3 VOLTAGE	0 V	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
GRID 2 VOLTAGE	150 V	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
CATHODE-BIAS RESISTOR	100 ohm	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
PLATE CURRENT	7.4 mA	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
GRID 2 CURRENT	2.6 mA	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
TRANSCONDUCTANCE	4600 uS	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
PLATE RESISTANCE, APPROX. – published value 1	1 ohm	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
PLATE RESISTANCE, APPROX. – published value 2	4 ohm	Published datasheet table value; multiple values on a source row represent separate limits or operating conditions.
Plate resistance	1400000 ohm	Promoted section value from the supplied datasheet.
Transconductance	0.0046 A/V	Promoted section value from the supplied datasheet.

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	330 V	Promoted section value from the supplied datasheet.
Maximum screen voltage	150 V	Promoted section value from the supplied datasheet.
Maximum plate dissipation	3.3 W	Promoted section value from the supplied datasheet.
Maximum screen dissipation	0.55 W	Promoted section value from the supplied datasheet.



TUBE TINKER
ELECTRON TUBE DATABASE

SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

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 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	Nominal
Heater current	150 mA	Nominal
Maximum plate voltage	330 V	Promoted published value
Maximum screen voltage	330 V	Promoted published value
Maximum plate dissipation	3.3 W	Promoted published value
Maximum screen dissipation	0.55 W	Promoted published value
Grid No.1 to plate	0.0035 mA	Direct Interelectrode Capacitances:
Heater Voltage	6.3 V	Direct Interelectrode Capacitances:
PLATE VOLTAGE	330 V	Maximum Ratings, Design-Maximum Values:
VOLTAGE	330 V	Maximum Ratings, Design-Maximum Values:
GRID-No.2 VOLTAGE See Grid-No.~ Intiut Rating Chart	2 V	Maximum Ratings, Design-Maximum Values:
For grid-No.2 voltages	2 V	Maximum Ratings, Design-Maximum Values:
For grid-N o.2 voltages	2 V	Maximum Ratings, Design-Maximum Values:

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
volts See Grid-No.2 Input Rating Chart	2 V	Maximum Ratings, Design-Maximum Values:
PLATE DISSIPATION	3 W	Maximum Ratings, Design-Maximum Values:
Heater negative with respect to cathode.	100 V	Maximum Ratings, Design-Maximum Values:
Heater positive with respect to cathode.	100 V	Maximum Ratings, Design-Maximum Values:
much as	95 V	Maximum Ratings, Design-Maximum Values:
volts =	7.5 V	Maximum Ratings, Design-Maximum Values:
135 volts positive with respect to cathode, and all other	135 V	Maximum Ratings, Design-Maximum Values:
With heater volts =	3 V	Maximum Ratings, Design-Maximum Values:
connected to cathode at socket, grid-No.2 supply volts =	2 V	Maximum Ratings, Design-Maximum Values:
150, and cathode resistor (ohms) bypassed =	100 ohm	Maximum Ratings, Design-Maximum Values:

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	1400000 ohm	Promoted published value
Transconductance	4600 uS	Promoted published value
Voltage	1 V	—
Current at	0.15 V	—
Plate Supply Voltage	250 V	Direct Interelectrode Capacitances:
Grid-No.2 Supply Voltage	150 V	Direct Interelectrode Capacitances:
Cathode Resistor	100 ohm	Direct Interelectrode Capacitances:
Plate Resistance (Approx)	1.4 megohm	Direct Interelectrode Capacitances:
Transconductance	4600 uS	Direct Interelectrode Capacitances:
Plate Current	7.4 mA	Direct Interelectrode Capacitances:
Grid-No.2 Current	2.6 mA	Direct Interelectrode Capacitances:
for plate μ	-7.7 V	Direct Interelectrode Capacitances:

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 · Pentode

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid No.1 to Plate	0.0035 pF	Capacitance
Internal Shield	5.4 pF	Capacitance
Internal Shield	4.4 pF	Capacitance

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	330 V	MaximumRatings
Grid-No.2 Supply Voltage	330 V	MaximumRatings
Negative-bias value	55 V	MaximumRatings
Positive-bias value	0 V	MaximumRatings
Plate Dissipation	3.3 W	MaximumRatings
For Grid-No.2 voltages up to 165 volts	0.55 V	MaximumRatings
nected to cathode at socket, grid-No. 2	150 V	ReducedHeaterPerformance
and cathode resistor (ohms) bypassed	100 ohm	ReducedHeaterPerformance

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	250 V	Characteristics
Grid-No.2 Voltage	150 V	Characteristics
Cathode Resistor	100 ohm	Characteristics
Plate Resistance (Approx.)	1.4 megohm	Characteristics
Plate Current	7.4 mA	Characteristics
Grid-No.2 Current	2.6 mA	Characteristics
Grid-No.1 Voltage (Approx.) for plate current of 10 /iA	7.7 V	Characteristics

TUBE TINKER

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and their source documents.

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