



ELECTRONIC TUBE REFERENCE

3BU8

Voltage - Dual Pentode electronic tube

CONSOLIDATED TECHNICAL DATA

2 SECTIONS

CONSTRUCTION

PENTODE-PENTODE

Sharp-cutoff twin pentode designed as combined television sync separator, sync clipper, and automatic-gain-control amplifier.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	9
NOMINAL HEATER	3.15 V / 600 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Common cathode	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Pentode	
TRANSCONDUCTANCE	0.001 S
MAXIMUM PLATE VOLTAGE	300 V
MAXIMUM SCREEN VOLTAGE	150 V
MAXIMUM PLATE DISSIPATION	1.1 W
MAXIMUM SCREEN DISSIPATION	0.75 W
MAXIMUM CATHODE CURRENT	12 mA
WARM-UP TIME	11 s
Published ratings/characteristics promoted where semantically applicable; supplemental values retained in parameter table.	

SECTION2 Pentode	
TRANSCONDUCTANCE	0.001 S
MAXIMUM PLATE VOLTAGE	300 V
MAXIMUM SCREEN VOLTAGE	150 V
MAXIMUM PLATE DISSIPATION	1.1 W
MAXIMUM SCREEN DISSIPATION	0.75 W
MAXIMUM CATHODE CURRENT	12 mA
<i>Published ratings, characteristics, operating points and capacitances reviewed.</i>	

Sharp-cutoff twin pentode used as combined sync separator, sync clipper, and AGC amplifier in television receivers.

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	100 V	EachSection
Screen Voltage	67.5 V	BothSections

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid4Transconductance	1000 uS	EachSectionSeparately

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

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 · Pentode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage	3.15 V	—
Heater Current	600 mA	—
ControlledWarmupHeater	1 boolean	—
Heater Warmup Time	11 s	—
Grid3 To Plate Capacitance	1.9 pF	EachUnit
Grid1 To All Capacitance	6 pF	—
Grid3ToAllCapacitance	3.6 pF	EachUnit
Plate To All Capacitance	3 pF	EachUnit
Grid3Unit1ToGrid3Unit2CapacitanceMaximum	0.015 pF	—
Grid3 Transconductance	180 uS	EachUnit

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid1Transconductance	1500 μ S	EachUnit
Grid3CutoffVoltage	-7.5 V	EachUnit
Grid1CutoffVoltage	-2.3 V	EachUnit
Application	Television sync separator and keyed AGC rectifier	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage Maximum	300 V	EachUnit
Grid1CircuitResistanceMaximum	0.5 Mohm	—
Grid3CircuitResistanceMaximum	0.5 Mohm	EachUnit
Plate Voltage	100 V	EachUnit
Grid3 Voltage	0 V	EachUnit
Grid2 Voltage	67.5 V	EachUnit
Plate Current	2.2 mA	EachUnit



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1966 Tung Sol Electronic Tubes 1 of 4

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

1966 TUNG SOL ELECTRONIC TUBES 1 OF 4

Section 1 · Pentode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	3.15 V	Published heater rating
Heater current	600 mA	Published heater rating
Pentode transconductance	9700 μ S	PentodeSection
Triode amplification factor	65	TriodeSection

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Pentode plate voltage	200 V	PentodeSection
Pentode screen voltage	200 V	PentodeSection
Pentode plate current	18 mA	PentodeSection
Triode plate voltage	200 V	TriodeSection
Triode plate current	3 mA	TriodeSection

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 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Current	560 mA–640 mA	Published nominal $\pm$ tolerance
Heater Voltage	3.15 V	At heater current 0.6 A
Warm-Up Time	11 s	Average
Plate Voltage	300 V	Inherited from explicitly referenced 6-volt parent type; heater variant
Screen Voltage	150 V	Inherited from explicitly referenced 6-volt parent type; heater variant
Cathode Current	12 mA	Inherited from explicitly referenced 6-volt parent type; heater variant
Plate Dissipation	1.1 W	Inherited from explicitly referenced 6-volt parent type; heater variant
Screen Input	0.75 W	Inherited from explicitly referenced 6-volt parent type; heater variant
Plate Voltage	100 V	Inherited from explicitly referenced 6-volt parent type; heater variant
Screen Voltage	67.5 V	Inherited from explicitly referenced 6-volt parent type; heater variant
Plate Current	2.2 mA	Inherited from explicitly referenced 6-volt parent type; heater variant

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid No.1 Transconductance	1500 μ S	Inherited from explicitly referenced 6-volt parent type; heater variant
Grid No.3 Transconductance	180 μ S	Inherited from explicitly referenced 6-volt parent type; heater variant

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

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	300 V	Published maximum rating
Maximum screen-grid voltage	150 V	Published maximum rating
Maximum plate dissipation	1.1 W	Published maximum rating

1975 RCA RC30

Section 2 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Tube Voltage Drop for plate current of	140 mA	Tube Voltage Drop for plate current of 140 mA 12 volts
Heater Voltage (ac/dc) 3.15 4.2	6.3 V	Heater Voltage (ac/dc) 3.15 4.2 6.3 volts
Heater Current 0.6 0.45	300 mA	Heater Current 0.6 0.45 0.3 ampere
Heater Warm-up Time (Average) 11	11 s	Heater Warm-up Time (Average) 11 11 seconds
Plate Voltage (Each Unit)	300 V	Plate Voltage (Each Unit) 300 volts
Grid-No.2 (Screen-Grid) Voltage	150 V	Grid-No.2 (Screen-Grid) Voltage 150 volts
Grid-No.1 (Control-Grid) Voltage, Negative bias value	50 V	Grid-No.1 (Control-Grid) Voltage, Negative bias value . . . 50 volts
Cathode Current	12 mA	Cathode Current 12 mA
Plate Dissipation (Each Unit)	1.1 W	Plate Dissipation (Each Unit) 1.1 watts
DC Plate Voltage	300 V	DC Plate Voltage 300 volts
Grid-No.2 (Screen-Grid) Supply Voltage	300 V	Grid-No.2 (Screen-Grid) Supply Voltage 300 volts
Maximum plate voltage	300 V	Published maximum rating
Maximum screen-grid voltage	150 V	Published maximum rating
Maximum plate dissipation	1.1 W	Published maximum rating

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage (Each Unit) 100	100 V	Plate Voltage (Each Unit) 100 100 volts
Grid-No-3 Voltage (Each Unit) – 10	0 V	Grid-No-3 Voltage (Each Unit) —10 0 volts

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-No.2 Voltage 67.6	67.5 V	Grid-No.2 Voltage 67.6 67.5 volts
Plate Current (Each Unit)	2.2 mA	Plate Current (Each Unit) 2.2 mA
Grid-No.2 Current 6.5	3.3 mA	Grid-No.2 Current 6.5 3.3 mA
Cathode Current 6.6	7.8 mA	Cathode Current 6.6 7.8 mA
Plate Voltage 100	100 V	Plate Voltage 100 100 volts
Grid-No.3 Voltage 0	0 V	Grid-No.3 Voltage 0 0 volts
Grid-No.2 Voltage 67.5	67.5 V	Grid-No.2 Voltage 67.5 67.5 volts
Plate Current –	2.2 mA	Plate Current — 2.2 mA
Grid-No.3-Circuit Resistance (Each Unit)	0.5 Mohm	Grid-No.3-Circuit Resistance (Each Unit) 0.5 megohm
Grid-No.1-Circuit Resistance	0.5 Mohm	Grid-No.1-Circuit Resistance 0.5 megohm
Heater Voltage (ac/dc) 6.3	12.6 V	Heater Voltage (ac/dc) 6.3 12.6 volts
Heater Current 0.9	450 mA	Heater Current 0.9 0.45 ampere
Heater Warm-up Time	11 s	Heater Warm-up Time 11 seconds

TUBE TINKER

An independent reference for electronic tubes, vacuum tubes, and their source documents.

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