

ELECTRONIC TUBE REFERENCE

6LF8

Voltage - Triode Pentode electronic tube

CONSOLIDATED TECHNICAL DATA

2 SECTIONS

CONSTRUCTION

PENTODE-TRIODE

Combined triode-pentode for television video, sync, burst, IF, AGC, or related signal-processing circuits.

GENERAL CHARACTERISTICS

BASE DESIGNATION	9DX	BASE PINS	9
NOMINAL HEATER	6.3 V / 600 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Dissimilar

9DX - TERMINAL PINOUT

TERMINAL	SECTION	ELEMENT	STATUS
PIN1 – 2K	B	K – Cathode	CONNECTED
PIN2 – 2G1	B	G1 – Control Grid	CONNECTED
PIN3 – 2P	B	P – Plate (Anode)	CONNECTED
PIN4 – H	–	H – Heater	CONNECTED
PIN5 – H	–	H – Heater	CONNECTED
PIN6 – 1G3	A	G3 – Suppressor Grid	CONNECTED
PIN6 – IS	A	IS – Internal Screen	CONNECTED
PIN6 – 1K	A	K – Cathode	CONNECTED
PIN7 – 1G1	A	G1 – Control Grid	CONNECTED
PIN8 – 1G2	A	G2 – Screen Grid	CONNECTED
PIN9 – 1P	A	P – Plate (Anode)	CONNECTED

SECTION RATINGS

SECTION1 Triode	
PLATE RESISTANCE	17500 Ω
TRANSCONDUCTANCE	0.004 S
AMPLIFICATION FACTOR	70
MAXIMUM PLATE VOLTAGE	300 V
MAXIMUM PLATE DISSIPATION	1.1 W
<i>Published promoted values applied where applicable; additional ratings, characteristics, and operating data retained as parameters.</i>	

SECTION2 Pentode	
PLATE RESISTANCE	200000 Ω
TRANSCONDUCTANCE	0.011 S
MAXIMUM PLATE VOLTAGE	300 V
MAXIMUM SCREEN VOLTAGE	330 V
MAXIMUM PLATE DISSIPATION	3.75 W
MAXIMUM SCREEN DISSIPATION	1.5 W
<i>Published promoted values applied where applicable; additional ratings, characteristics, and operating data retained as parameters.</i>	

High-mu triode and sharp-cutoff pentode used in video-amplifier stages of color and black-and-white 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 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	—
Heater current	600 mA	—

1961 TUNG SOL

Section 2 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	—
Heater current	600 mA	—



SOURCE OPERATING CONDITIONS

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1964 RMA EIA

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

1964 RMA EIA

Section 1 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage	6.3 V	—
Heater Current	600 mA	—
Plate Voltage	200 V	—
Grid Voltage	-2 V	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Current	4 mA	—
Amplification Factor	70	—
Plate Resistance	17500 ohm	—
Transconductance	4000 uS	—
Grid To Plate Capacitance	2.2 pF	—
Input Capacitance	3.2 pF	—
Output Capacitance	1.8 pF	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
PositiveGridBiasMaximum	4 V	—
GridCurrentMaximum	8 mA	—

1964 RMA EIA

Section 2 · Pentode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	100 V	—
Screen Voltage	150 V	—
Grid Voltage	-2.5 V	—
Plate Current	20 mA	—
Screen Current	5 mA	—
Plate Resistance	200000 ohm	—
Transconductance	11000 uS	—
Grid To Plate Capacitance	0.06 pF	—
Input Capacitance	10 pF	—
Output Capacitance	3.6 pF	—



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 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	125 V	ClassA

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	4000 μ S	ClassA
Plate resistance	17500 ohm	ClassA
Amplification factor	70	ClassA

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

1966 TUNG SOL ELECTRONIC TUBES 2 OF 4

Section 2 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	125 V	ClassA
Screen voltage	100 V	ClassA

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	11000 μ S	ClassA
Plate resistance	200000 ohm	ClassA

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Input capacitance	3 pF	Section2
Output capacitance	3 pF	Section2

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 · Triode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Voltage (AC or DC) – published value 1	6.3 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Voltage (AC or DC) – published value 2	0.6 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Current at heater volts = 6 3 6 V – published value 1	6 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Current at heater volts = 6 3 3 V – published value 2	3 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Current at heater volts = 6 3 0.6006 V – published value 3	0.6006 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Pin 1 -Triode Cathode	1	Published datasheet value; multiple values represent separate source-table limits or conditions.
Pin 2 -Triode Grid	2	Published datasheet value; multiple values represent separate source-table limits or conditions.
Pin 3 -Triode Plate	3	Published datasheet value; multiple values represent separate source-table limits or conditions.
Pin 4 -Heater	4	Published datasheet value; multiple values represent separate source-table limits or conditions.
Pin 5 -Heater	5	Published datasheet value; multiple values represent separate source-table limits or conditions.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage – published value 1	200 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Plate Voltage – published value 2	40 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Plate Voltage – published value 3	75 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Plate Voltage – published value 4	100 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Grid-No.2 Voltage – published value 1	150 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Grid-No.2 Voltage – published value 2	150 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Grid-No.1 Voltage – published value 1	-2 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Grid-No.1 Voltage – published value 2	3 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Grid-No.1 Voltage – published value 3	0 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Grid-No.1 Voltage – published value 4	-2.5 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Plate Resistance (Approx.) – published value 1	17500 ohm	Published datasheet value; multiple values represent separate source-table limits or conditions.
Plate Resistance (Approx.) – published value 2	10000 ohm	Published datasheet value; multiple values represent separate source-table limits or conditions.
Plate Resistance (Approx.) – published value 3	200000 ohm	Published datasheet value; multiple values represent separate source-table limits or conditions.
Transconductance – published value 1	4000	Published datasheet value; multiple values represent separate source-table limits or conditions.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance – published value 2	4000	Published datasheet value; multiple values represent separate source-table limits or conditions.
Transconductance – published value 3	11000	Published datasheet value; multiple values represent separate source-table limits or conditions.
Plate Current – published value 1	4 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
Plate Current – published value 2	11 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
Plate Current – published value 3	50 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
Plate Current – published value 4	20 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
Grid-No.2 Current – published value 1	12 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
Grid-No.2 Current – published value 2	5 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
Grid-No.1 Current – published value 1	0 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
Grid-No.1 Current – published value 2	2.7 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
Grid-No.1 Current – published value 3	0 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
Grid-No.1 Current – published value 4	0 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
for plate $\mu_a = 20$ – published value 1	20 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
for plate $\mu_a = 20$ – published value 2	-5 V	Published datasheet value; multiple values represent separate source-table limits or conditions.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
for plate $\mu a = 20$ – published value 3	-8 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
between 165 and 330 volts – published value 1	165 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
between 165 and 330 volts – published value 2	330 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
heater operation current must be limited to 0.600 t0.0Y0 am –	0.6	Published datasheet value; multiple values represent separate source-table limits or conditions.
PLATE VOLTS = 00	0 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
GRID–No.2 VOLTS- I50 11111111111111111111 l~illillllllil111R1~I~~IIIIIII	11111111111111 V	Published datasheet value; multiple values represent separate source-table limits or conditions.

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater negative with respect to cathode 200 max. volts	200 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Heater positive with respect to cathode 200° max. volts	200 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Plate Voltage – published value 1	330 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Plate Voltage – published value 2	330 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Supply Voltage	330 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Negative-bias value – published value 1	55 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Negative-bias value – published value 2	55 V	Published datasheet value; multiple values represent separate source-table limits or conditions.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Positive-bias value – published value 1	4 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Positive-bias value – published value 2	0 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Grid-No.1 Current – published value 1	8 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
Grid-No.1 Current – published value 2	0 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
Plate Dissipation – published value 1	1 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
Plate Dissipation – published value 2	1 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
Plate Dissipation – published value 3	3.75 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
For fixed-bias operation – published value 1	0.5 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
For fixed-bias operation – published value 2	0.25 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
For cathode-bias operation	1 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
script 1 atltl ed to the class letter denotes that grid current tlo es not	1	Published datasheet value; multiple values represent separate source-table limits or conditions.

1971 RCA HB3 BINDER 5 OF 7

Section 2 · Pentode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
'Pin 6- Pentode Cathode,	6	Published datasheet value; multiple values represent separate source-table limits or conditions.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Pin 7- Pentode Grid No.1	7	Published datasheet value; multiple values represent separate source-table limits or conditions.
Pin 8- Pentode Grid No.2	8	Published datasheet value; multiple values represent separate source-table limits or conditions.
Pin 9- Pentode Plate	9	Published datasheet value; multiple values represent separate source-table limits or conditions.


SOURCE DATA APPENDIX

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 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage	6.3 V	Nominal
Heater Current	600 mA	Nominal
Plate Voltage	200 V	ClassA
Control Grid Voltage	-2 V	ClassA
Plate Current	4 mA	ClassA

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-Plate Capacitance	2.2 pF	—
Grid Input Capacitance	3.2 pF	—
Plate Output Capacitance	1.8 pF	—

1975 RCA RC30

Section 2 · Pentode

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid No.1-to-Plate Capacitance	0.06 pF	—
Grid No.1 Input Capacitance	10 pF	—
Plate Output Capacitance	3.6 pF	—
Pentode Grid No.1-to-Triode Plate Capacitance	0.008 pF	—
Pentode Plate-to-Triode Plate Capacitance	0.15 pF	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	100 V	ClassA
Screen Voltage	150 V	ClassA
Control Grid Voltage	-2.5 V	ClassA
Plate Current	20 mA	ClassA
Screen Current	5 mA	ClassA

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