

ELECTRONIC TUBE REFERENCE

6CY7

Power - TV Vertical Output electronic tube

CONSOLIDATED TECHNICAL DATA

2 SECTIONS

CONSTRUCTION

TRIODE-TRIODE

Dual triode intended for television vertical-deflection service, combining oscillator/driver and power-output functions where applicable. Manufacturer data emphasize vertical-sweep operation, pulse-voltage capability, and the stronger section's current and dissipation requirements.

GENERAL CHARACTERISTICS

BASE DESIGNATION	9EF	BASE PINS	9
NOMINAL HEATER	6.3 V / 750 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Dissimilar

9EF - TERMINAL PINOUT

TERMINAL	SECTION	ELEMENT	STATUS
PIN1	B	P – Plate (Anode)	CONNECTED
PIN3	B	G1 – Control Grid	CONNECTED
PIN4	–	H – Heater	CONNECTED
PIN5	–	H – Heater	CONNECTED
PIN6	A	P – Plate (Anode)	CONNECTED
PIN7	A	G1 – Control Grid	CONNECTED
PIN8	A	K – Cathode	CONNECTED
PIN9	B	K – Cathode	CONNECTED

SECTION RATINGS

SECTION1 Triode	
PLATE RESISTANCE	52000 Ω
TRANSCONDUCTANCE	0.0013 S
AMPLIFICATION FACTOR	68
MAXIMUM PLATE VOLTAGE	350 V
MAXIMUM PLATE DISSIPATION	1 W
MAXIMUM CATHODE CURRENT	35 mA
<i>Published promoted values applied where applicable; additional ratings and operating data retained as parameters.</i>	

SECTION2 Triode	
PLATE RESISTANCE	920 Ω
TRANSCONDUCTANCE	0.0054 S
AMPLIFICATION FACTOR	5
MAXIMUM PLATE VOLTAGE	350 V
MAXIMUM PLATE DISSIPATION	5.5 W
MAXIMUM CATHODE CURRENT	35 mA
<i>Section 2 vertical-deflection amplifier; 1800 V pulse limit retained as parameter.</i>	

Miniature dual triode combining a high-mu oscillator section and a low-mu power section for television vertical-deflection oscillator and amplifier circuits.



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 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	150 V	Published operating/characteristic table
Grid Voltage	-3 V	Published operating/characteristic table

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Current	30 mA	Published operating/characteristic table
Transconductance	5400 μ S	Published operating/characteristic table
Plate Resistance	920 ohm	Published operating/characteristic table



SOURCE OPERATING CONDITIONS

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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	250 V	Section1
Grid voltage	-3 V	Section1

Characteristic		
Parameter	Published Value	Condition / Note
Plate current	2.2 mA	Section1

1966 TUNG SOL ELECTRONIC TUBES 2 OF 4

Section 2 · Triode

Other		
Parameter	Published Value	Condition / Note
Maximum DC plate voltage	350 V	Section2
Maximum peak positive pulse plate voltage	1800 V	Section2
Plate voltage	150 V	Section2
Cathode-bias resistor	620 ohm	Section2

Characteristic		
Parameter	Published Value	Condition / Note
Plate current	30 mA	Section2



SOURCE OPERATING CONDITIONS

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1968 General Electric Co

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

1968 GENERAL ELECTRIC CO

Section 1 · Triode

Other		
Parameter	Published Value	Condition / Note
HeaterVoltageNominal	6.3 V	—
HeaterCurrentNominal	750 mA	—

Characteristic		
Parameter	Published Value	Condition / Note
Plate Resistance	52000 Ohm	—
Transconductance	1300 uS	—
Amplification Factor	68	—

Section 2 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Resistance	920 0hm	—
Transconductance	5400 uS	—
Amplification Factor	5	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak Positive Pulse Plate Voltage	1800 V	VerticalDeflection
Peak Cathode Current	120 mA	VerticalDeflection



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

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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 · 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	10 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Current	750 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
Grid to plate – published value 1	1.8	Published datasheet value; multiple values represent separate source-table limits or conditions.
Grid to plate – published value 2	4.4	Published datasheet value; multiple values represent separate source-table limits or conditions.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid to cathode and heater – published value 1	1.5	Published datasheet value; multiple values represent separate source-table limits or conditions.
Grid to cathode and heater – published value 2	5	Published datasheet value; multiple values represent separate source-table limits or conditions.
Plate to cathode and heater – published value 1	0.3	Published datasheet value; multiple values represent separate source-table limits or conditions.
Plate to cathode and heater – published value 2	1	Published datasheet value; multiple values represent separate source-table limits or conditions.
Plate Supply Voltage – published value 1	250 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Plate Supply Voltage – published value 2	60 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Plate Supply Voltage – published value 3	150 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Grid Voltage – published value 1	3 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Grid Voltage – published value 2	0 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Cathode Resistor	620 ohm	Published datasheet value; multiple values represent separate source-table limits or conditions.
Amplification Factor – published value 1	68 A	Published datasheet value; multiple values represent separate source-table limits or conditions.
Amplification Factor – published value 2	5 A	Published datasheet value; multiple values represent separate source-table limits or conditions.
Plate Resistance (Approx.) – published value 1	52000 ohm	Published datasheet value; multiple values represent separate source-table limits or conditions.
Plate Resistance (Approx.) – published value 2	920 ohm	Published datasheet value; multiple values represent separate source-table limits or conditions.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance – published value 1	1300	Published datasheet value; multiple values represent separate source-table limits or conditions.
Transconductance – published value 2	5400	Published datasheet value; multiple values represent separate source-table limits or conditions.
Plate Current – published value 1	1.2 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
Plate Current – published value 2	80 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
Plate Current – published value 3	30 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
plate μ a = 10 – published value 1	10 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
plate μ a = 10 – published value 2	5.5 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
plate μ a = 200 – published value 1	200 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
plate μ a = 200 – published value 2	40 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Pin 1 –Plate of – published value 1	1	Published datasheet value; multiple values represent separate source-table limits or conditions.
Pin 1 –Plate of – published value 2	6	Published datasheet value; multiple values represent separate source-table limits or conditions.
Pin 2 –Internal Con– – published value 1	2	Published datasheet value; multiple values represent separate source-table limits or conditions.
Pin 2 –Internal Con– – published value 2	7	Published datasheet value; multiple values represent separate source-table limits or conditions.
Do Not Use	8	Published datasheet value; multiple values represent separate source-table limits or conditions.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Pin 3 –Grid of	3	Published datasheet value; multiple values represent separate source-table limits or conditions.
Unit No.2	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.

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
DC PLATE VOLTAGE	350 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
PEAK NEGATIVE-PULSE GRID•VOLTAGE•	400 V	Pulse
PLATE DISSIPATION	1 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
Heater negative with respect to cathode 200 max	200 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Heater positive with respect to cathode 200 max	200 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Grid-Circuit Resistance – published value 1	2 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
Grid-Circuit Resistance – published value 2	2 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
DC PLATE VOLTAGE	350 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
PEAK POSITIVE-PULSE PLATE VOLTAGE#	1800 V	Pulse
PEAK NEGATIVE-PULSE GRID VOLTAGE	250 V	Pulse

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak	120 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
PLATE DISSIPATION – published value 1	5 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
PLATE DISSIPATION – published value 2	5 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
For cathode-bias operation – published value 1	2 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
For cathode-bias operation – published value 2	2 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

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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
Plate voltage	250 V	ClassA
Grid voltage	-3 V	ClassA
Plate current	1.2 mA	ClassA

1975 RCA RC30

Section 2 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	150 V	ClassA
Cathode-bias resistor	620 ohm	ClassA
Plate current	30 mA	ClassA

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak positive-pulse plate voltage	1800 V	VerticalDeflection
Peak cathode current	120 mA	VerticalDeflection
Average cathode current	35 mA	VerticalDeflection

TUBE TINKER

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