

ELECTRONIC TUBE REFERENCE

6CY5

Voltage Tetrode electronic tube

CONSOLIDATED TECHNICAL DATA
1 SECTION
CONSTRUCTION
TETRODE

Sharp-cutoff tetrode for VHF television-tuner RF amplification. Its high output resistance and controlled cutoff suit sensitive tuner front ends.

GENERAL CHARACTERISTICS

BASE DESIGNATION	7EW	BASE PINS	7
NOMINAL HEATER	6.3 V / 200 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

7EW - TERMINAL PINOUT

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

SECTION RATINGS

SECTION1 Tetrode	
PLATE RESISTANCE	100000 Ω
TRANSCONDUCTANCE	0.008 S
MAXIMUM PLATE VOLTAGE	180 V
MAXIMUM SCREEN VOLTAGE	180 V
MAXIMUM PLATE DISSIPATION	2 W
MAXIMUM SCREEN DISSIPATION	0.5 W
MAXIMUM CATHODE CURRENT	20 mA
<i>Published maximum ratings and characteristic constants promoted; identical twin sections compressed when applicable.</i>	

Miniature sharp-cutoff tetrode intended as an RF amplifier in VHF television tuners, with low grid-to-plate capacitance and high transconductance.



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 · Tetrode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	125 V	Published operating/characteristic table
Screen Voltage	80 V	Published operating/characteristic table

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Current	10 mA	Published operating/characteristic table
Screen Current	1.5 mA	Published operating/characteristic table
Transconductance	8000 μ S	Published operating/characteristic table
Plate Resistance	0.1 ohm	Published operating/characteristic table



SOURCE OPERATING CONDITIONS

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1965 Ericsson Longlife

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

1965 ERICSSON LONGLIFE

Section 1 · Tetrode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	125 V	—
Screen-grid voltage	80 V	—
Control-grid voltage	-1 V	—
Plate current	10 mA	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Screen-grid current	1.5 mA	—
Transconductance minimum	6300 μ S	—
Transconductance maximum	10200 μ S	—
Plate current maximum	16 mA	—
Screen-grid current maximum	2.5 mA	—

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	8000 μ S	—
Plate resistance	0.1 M Ω m	—



SOURCE OPERATING CONDITIONS

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

Section 1 · Tetrode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	125 V	—
Screen-grid voltage	80 V	—
Grid 1 voltage	-1 V	—
Plate current	10 mA	—
Screen-grid current	1.4 mA	—

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	125000 Ω m	—
Transconductance	8000 μ S	—
Control-grid cutoff voltage	-6 V	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-plate capacitance	0.03 pF	Shielded
Input capacitance	4.4 pF	Shielded
Output capacitance	2.8 pF	Shielded



SOURCE DATA APPENDIX

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 · Tetrode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage	6.3 V	—
Heater Current	200 mA	—
Transconductance	8000 uS	RepresentativePublishedPoint
Plate Resistance	125000 ohm	RepresentativePublishedPoint

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum Plate Voltage	180 V	—
Maximum Plate Dissipation	2 W	—
Screen Supply Voltage	180 V	—
Screen Dissipation	0.5 W	—
Plate Voltage	125 V	—
Screen Voltage	80 V	—
Grid Voltage	-1 V	—
Plate Current	10 mA	—
Screen Current	1.4 mA	—



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 · Tetrode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	125 V	—
Screen voltage	80 V	—
Control-grid voltage	-1 V	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Control-grid cutoff bias	-6 V	—
Plate current	10 mA	—
Screen current	1.5 mA	—



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 · Tetrode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterVoltageNominal	6.3 V	—
HeaterCurrentNominal	200 mA	—
Typical Plate Voltage	125 V	AverageCharacteristics
Typical Screen Voltage	80 V	AverageCharacteristics

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Resistance	100000 Ohm	—
Transconductance	8000 uS	—


SOURCE DATA APPENDIX

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196X LM Ericsson

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

196X LM ERICSSON

Section 1 · Tetrode

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	—
Heater current	200 mA	—
Transconductance	8000 uS	—
Application	CATV broadband RF amplifier	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	200 V	—
Maximum screen voltage	200 V	—
Maximum plate dissipation	22 W	—


SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

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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

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	—
Heater current	200 mA	—
Plate voltage	125 V	ClassA
Screen voltage	80 V	ClassA
Grid voltage	-1 V	ClassA
Plate current	10 mA	ClassA
Screen current	1.4 mA	ClassA
Maximum plate voltage	180 V	—
Maximum screen voltage	180 V	—
Maximum plate dissipation	2 W	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	125000 ohm	ClassA
Transconductance	8000 uS	ClassA

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-plate capacitance	0.03 pF	—
Input capacitance	4.4 pF	—
Output capacitance	2.74 pF	—



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

SOURCE PDF

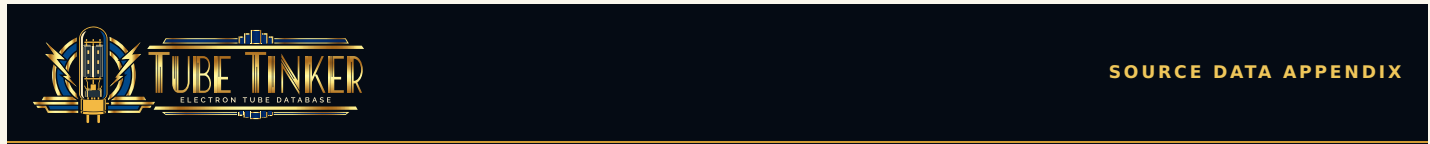
1971 RCA HB3 Binder 4 of 7

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

Section 1 · Tetrode

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	200 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
Grid No.1 to plate – published value 1	0	Published datasheet value; multiple values represent separate source-table limits or conditions.
Grid No.1 to plate – published value 2	3	Published datasheet value; multiple values represent separate source-table limits or conditions.
Grid No.1 to cathode & internal shield,	8	Published datasheet value; multiple values represent separate source-table limits or conditions.
grid No.2, and heater	4.5	Published datasheet value; multiple values represent separate source-table limits or conditions.
grid No.2, and heater	3	Published datasheet value; multiple values represent separate source-table limits or conditions.
Plate Voltage	125 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Grid-No.2 Voltage	80 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Grid-No.1 Voltage	-1 V	Published datasheet value; multiple values represent separate source-table limits or conditions.
Plate Resistance (Approx)	0.1 Mohm	Published datasheet value; multiple values represent separate source-table limits or conditions.
Transconductance	8000	Published datasheet value; multiple values represent separate source-table limits or conditions.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Current	10 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
Grid-No.2 Current	1.5 mA	Published datasheet value; multiple values represent separate source-table limits or conditions.
plate μ a = 20 – published value 1	20 V	Published datasheet value; multiple values represent separate source-table limits or conditions.



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 · Tetrode

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid No.1-to-plate capacitance	0.03 pF	—
Grid No.1-to-cathode/heater/screen/shield capacitance	4.5 pF	—
Plate-to-cathode/heater/screen/shield capacitance	3 pF	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	125 V	ClassA
Screen-grid voltage	80 V	ClassA
Transconductance	8000 μ S	ClassA
Plate current	10 mA	ClassA
Screen-grid current	1.5 mA	ClassA
Cathode current	20 mA	MaximumRating