

ELECTRONIC TUBE REFERENCE

6EV5

Voltage - Tetrode electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

TETRODE

Sharp-cutoff tetrode designed as an RF amplifier in VHF television tuners, providing high-frequency gain for the receiver front end.

GENERAL CHARACTERISTICS

BASE DESIGNATION	E7-1	BASE PINS	7
NOMINAL HEATER	6.3 V / 600 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Tetrode	
PLATE RESISTANCE	150000 Ω
TRANSCONDUCTANCE	0.0088 S
MAXIMUM PLATE VOLTAGE	300 V
MAXIMUM SCREEN VOLTAGE	300 V
MAXIMUM PLATE DISSIPATION	2.5 W
MAXIMUM SCREEN DISSIPATION	0.55 W
MAXIMUM CATHODE CURRENT	20 mA
MAXIMUM HEATER-CATHODE VOLTAGE	200 V
WARM-UP TIME	11 s
Published promoted fields populated from the printed semantic headings.	

Sharp-cutoff tetrode used as an RF amplifier in VHF television tuners.



SOURCE OPERATING CONDITIONS

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1950 Sylvania

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

1950 SYLVANIA

Section 1 · Tetrode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage..... 2.4 2.9 6.3 Volts	6.3 V	Heater Voltage..... 2.4 2.9 6.3 Volts
Heater Current. 600 450 200 Ma	200 mA	Heater Current. 600 450 200 Ma
Output. . . . e 2.9 uuf	2.9 pF	Output. . . . e 2.9 uuf
Grid No.2 Voltage., 80 Volis	2 V	Grid No.2 Voltage., 80 Volis
Grid No.1 Voltage., -1 Volt	-1 V	Grid No.1 Voltage., -1 Volt
Plate Current. i i 11.5 Ma	11.5 mA	Plate Current. i i 11.5 Ma
Grid No. 2 Current. it 0.9 Ma	0.9 mA	Grid No. 2 Current. it 0.9 Ma
Transconductance., 8800 umhos	8800 umhos	Transconductance., 8800 umhos
Plate Resistance. cooiiiiiiiiinnens 0.150 Megohm	0.15 Megohm	Plate Resistance. cooiiiiiiiiinnens 0.150 Megohm

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage..... ... 275 Volts Max.	275 V	Plate Voltage..... ... 275 Volts Max.
Grid No. 2 Supply Voltage R 180 Volts Max.	180 V	Grid No. 2 Supply Voltage R 180 Volts Max.
Plate Dissipation. 3.25 Watts Max.	3.25 W	Plate Dissipation. 3.25 Watts Max.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid No. 2 Dissipation. cuv.. 0.2 Watts Max.	0.2 W	Grid No. 2 Dissipation. cuv.. 0.2 Watts Max.
Positive Grid No. 1 Voltage. 0 Volts Max.	0 V	Positive Grid No. 1 Voltage. ... 0 Volts Max.
Cathode Current., i i 20 Ma Max.	20 mA	Cathode Current., i i 20 Ma Max.
Grid Circuit Resistance. oiovn... 0.5 Megohm Max.	0.5 Megohm	Grid Circuit Resistance. oiovn... 0.5 Megohm Max.


SOURCE DATA APPENDIX

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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 · Tetrode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Resistance	150000 ohm	Typical
Transconductance	8800 uS	Typical


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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

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	250 V	—
Screen-grid voltage	80 V	—
Control-grid voltage	-1 V	—
Plate current	11.5 mA	—
Screen-grid current	0.9 mA	—
Transconductance minimum	7000 μ S	—
Transconductance maximum	11000 μ S	—
Plate current maximum	14 mA	—
Screen-grid current maximum	1.8 mA	—

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	8800 μ S	—
Plate resistance	0.15 M Ω	—



SOURCE DATA APPENDIX

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

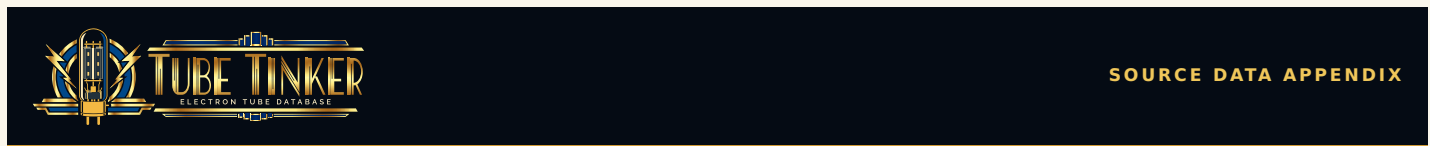
Section 1 · Tetrode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	250 V	—
Screen-grid voltage	80 V	—
Grid 1 voltage	-1 V	—

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	150000 Ω	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	8800 μ S	—
Control-grid cutoff voltage	-4.5 V	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-plate capacitance	0.035 pF	Shielded
Input capacitance	4.5 pF	Shielded
Output capacitance	2.9 pF	Shielded



SOURCE OPERATING CONDITIONS

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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

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage maximum	275 V	—
Screen supply voltage maximum	180 V	—
Plate dissipation maximum	3.25 W	—
Screen dissipation maximum	0.2 W	—
Typical plate voltage	250 V	—
Typical screen voltage	80 V	—
Plate current	11.5 mA	—
Screen current	0.9 mA	—

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	150000 ohm	—
Transconductance	8800 μ S	—
Grid1 cutoff bias	-4.5 V	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid1-to-plate capacitance maximum	0.035 pF	—
Input capacitance	4.5 pF	—
Output capacitance	2.9 pF	—

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Application	VHF television tuner RF amplifier	—



SOURCE DATA APPENDIX

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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	250 V	ClassA
Screen_voltage	80 V	ClassA
Grid_1_voltage	-1 V	ClassA

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate_current	11.5 mA	ClassA
Screen_current	0.9 mA	ClassA



SOURCE DATA APPENDIX

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	8799.999999999998 uS	—
Application	CATV broadband RF amplifier	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum plate voltage	300 V	—
Maximum screen voltage	200 V	—
Maximum plate dissipation	3.5 W	—



SOURCE DATA APPENDIX

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 · Tetrode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	250 V	ClassA
Plate current	11.5 mA	ClassA
Maximum plate voltage	330 V	—
Maximum screen-grid voltage	165 V	—

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PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid No.1 to plate	0.035 mA	Published datasheet value; multiple numbers on one source row represent separate limits or operating conditions.

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	150000 ohm	ClassA
Transconductance	8800 uS	ClassA
Voltage (AC or DC) – published value 1	6.3 V	Published datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
Voltage (AC or DC) – published value 2	10 V	Published datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
Current at 6.3 volts – published value 1	6.3 V	Published datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
Current at 6.3 volts – published value 2	0.2 V	Published datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
grid No.2, and heater – published value 1	4	Published datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
grid No.2, and heater – published value 2	50	Published datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
grid No.2, and heater – published value 1	2	Published datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
grid No.2, and heater – published value 2	90	Published datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
Plate Voltage	250 V	Published datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
Grid-No.2 Voltage	80 V	Published datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
Plate Resistance (Approx) – published value 1	0 Mohm	Published datasheet value; multiple numbers on one source row represent separate limits or operating 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

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage (ac/dc) g	3 V	Published in approved 6EV5 target entry; Section1
0	2 A	Published in approved 6EV5 target entry; Section1
Plate Voltage	275 V	Published in approved 6EV5 target entry; Section1
Cathode Current	20 mA	Published in approved 6EV5 target entry; Section1
Plate Dissipation	3.25 W	Published in approved 6EV5 target entry; Section1
For grid-No.2 voltages up to	90 V	Published in approved 6EV5 target entry; Section1
For grid-No.2 voltages up to 90 volts	0.2 W	Published in approved 6EV5 target entry; Section1
For grid-No.2 voltages between 90 and	180 V	Published in approved 6EV5 target entry; Section1

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid No.1 to Cathode, Heater, Grid No.2, and Internal Shield	4.5 pF	Published in approved 6EV5 target entry; Section1
Plate to Cathode, Heater, Grid No.2, and Internal Shield	2.9 pF	Published in approved 6EV5 target entry; Section1

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-No.2 Voltage	80 V	Published in approved 6EV5 target entry; Section1
Grid-No.1 Voltage	-1 V	Published in approved 6EV5 target entry; Section1
Plate Resistance (Approx.)	0.15 MΩ	Published in approved 6EV5 target entry; Section1
Transconductance	8800 μS	Published in approved 6EV5 target entry; Section1
Plate Current	11.5 mA	Published in approved 6EV5 target entry; Section1
Grid-No.2 Current	0.9 mA	Published in approved 6EV5 target entry; Section1
Grid-No.1 Voltage (Approx.) for transconductance of	100 μS	Published in approved 6EV5 target entry; Section1

TUBE TINKER

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