ELECTRONIC TUBE REFERENCE

2FH5

Voltage - Triode (single high frequency) electronic tube

CONSOLIDATED TECHNICAL DATA
1 SECTION
CONSTRUCTION
TRIODE

> High-mu miniature triode used as an RF amplifier in VHF color and black-and-white television tuners.

General characteristics

BASE DESIGNATION	7FP	**BASE PINS**	7
NOMINAL HEATER	2.35 V / 600 mA	**PARALLEL HEATER**	– / –
HEATING	Indirect	**SERIES OPERATION**	Not specified
CATHODE ARRANGEMENT	Separate cathodes	**SECTION CONSTRUCTION**	Similar

7FP - Terminal pinout

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

Section ratings

SECTION1 Triode

PLATE RESISTANCE	5600 Ω
TRANSCONDUCTANCE	0.009 S
AMPLIFICATION FACTOR	50
MAXIMUM PLATE VOLTAGE	150 V
MAXIMUM PLATE DISSIPATION	2.2 W
MAXIMUM CATHODE CURRENT	22 mA
MAXIMUM HEATER-CATHODE VOLTAGE	100 V
WARM-UP TIME	11 s

Published promoted fields populated from Maximum Ratings / Characteristics / Typical Operation headings.

High-mu miniature triode used as an RF amplifier in VHF color and black-and-white television tuners.

SOURCE OPERATING CONDITIONS

1961 Tung Sol

SOURCE PDF

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

1961 TUNG SOL

Section 1 · Triode

CAPACITANCE		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Grid To Plate Capacitance	**0.52 pF**	Maximum
Input Capacitance	**3.2 pF**	—
Output Capacitance	**4 pF**	WithShield

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 · Triode

OTHER		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Plate voltage	**135 V**	—
Grid voltage	**-1 V**	—
Plate current	**11 mA**	—

CHARACTERISTICS		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Plate resistance	**5600 Ohm**	—
Transconductance	**9000 uS**	—
Amplification factor	**50 ratio**	—
Control-grid cutoff voltage	**-5.5 V**	—

SOURCE OPERATING CONDITIONS

1965 Westinghouse Data Book

SOURCE PDF

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

1965 WESTINGHOUSE DATA BOOK

Section 1 · Triode

CHARACTERISTIC		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Heater Voltage	**2.35 V**	—
Heater Current	**600 mA**	—
ControlledWarmupHeater	**1 boolean**	—
Heater Warmup Time	**11 s**	—
Plate Voltage	**135 V**	—
Grid Voltage	**-1 V**	—
Plate Current	**11 mA**	—
Plate Resistance	**5600 ohm**	—
Transconductance	**9000 uS**	—
Amplification Factor	**50**	—
GridCutoffBias	**-5.5 V**	—
Grid To Plate Capacitance	**0.6 pF**	—
Input Capacitance	**3.2 pF**	—
Output Capacitance	**4 pF**	—

OTHER		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
HeaterCathodeVoltageMaximum	**100 V**	—

SOURCE OPERATING CONDITIONS

1966 Tung Sol Electronic Tubes 1 of 4

SOURCE PDF

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1966 TUNG SOL ELECTRONIC TUBES 1 OF 4

Section 1 · Triode

CAPACITANCE

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
GRID TO PLATE: G TO P (MAX.) (FOGEY) -►	**0.52 pF**	Capacitances | GRID TO PLATE: G TO P (MAX.) (FOGEY) -► 0.52 -i 0.52 pf

OTHER

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HEATER VOLTAGE	**2.35 V**	Maximum Ratings | HEATER VOLTAGE 2.35 VOLTS
MAXIMUM PLATE VOLTAGE	**150 V**	Maximum Ratings | MAXIMUM PLATE VOLTAGE 150 VOLTS
MAXIMUM GRID VOLTAGE (POSITIVE	**0 V**	Maximum Ratings | MAXIMUM GRID VOLTAGE (POSITIVE 1 0 VOLT
MAXIMUM PLATE DISSIPATION	**2.2 W**	Maximum Ratings | MAXIMUM PLATE DISSIPATION 2.2 WATTS
MAXIMUM DC CATHODE CURRENT	**22 mA**	Maximum Ratings | MAXIMUM DC CATHODE CURRENT 22 MA.
n MAXIMUM GRID CIRCUIT RESISTANCE	**0 Mohm**	Maximum Ratings | n MAXIMUM GRID CIRCUIT RESISTANCE 1 .0 MEGOHM
HEATER NEGATIVE WITH RESPECT TO CATHODE	**100 V**	Maximum Ratings | HEATER NEGATIVE WITH RESPECT TO CATHODE 100 VOLTS
HEATER POSITIVE WITH RESPECT TO CATHODE	**100 V**	Maximum Ratings | HEATER POSITIVE WITH RESPECT TO CATHODE 100 VOLTS
HEATER WARM-UP TIME (APPROX.)*	**11 s**	Maximum Ratings | HEATER WARM-UP TIME (APPROX.)* 11.0 SECONDS
HEATER VOLTAGE	**2.35 V**	Typical Operating Conditions | HEATER VOLTAGE 2.35 VOLTS
PLATE VOLTAGE	**135 V**	Typical Operating Conditions | PLATE VOLTAGE 135 VOLTS
GRID VOLTAGE	**1 V**	Typical Operating Conditions | GRID VOLTAGE -1.0 VOLT
PLATE RESISTANCE (APPROX.)	**5600 ohm**	Typical Operating Conditions | PLATE RESISTANCE (APPROX.) 5600 OHMS

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
TRANSCONDUCTANCE	**9000 MMHOS**	Typical Operating Conditions | TRANSCONDUCTANCE 9000 µMHOS
PLATE CURRENT	**11 mA**	Typical Operating Conditions | PLATE CURRENT 11 MA.
GRID VOLTAGE (A PP ROX.) FOR	**5.5 V**	Typical Operating Conditions | GRID VOLTAGE (A PP ROX.) FOR 100 µA PLATE CURRENT - 5.5 VOLTS

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 · Triode

OTHER

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	**2.35 V**	—
Heater current	**600 mA**	—
Heater warm-up time	**11 s**	—
Plate voltage	**135 V**	ClassA
Plate current	**10 mA**	ClassA

CHARACTERISTIC

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Transconductance	**9000 uS**	ClassA
Amplification factor	**45**	ClassA
Plate resistance	**5000 ohm**	ClassA

APPLICATION

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Application	**VHF grounded-grid amplifier**	—

SOURCE OPERATING CONDITIONS

1975 RCA RC30

SOURCE PDF

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 (ac/dc) 2.35	**6.3 V**	Published in approved 6FH5 target entry; Section1
Heater Current	**200 mA**	Published in approved 6FH5 target entry; Section1
Plate Voltage	**150 V**	Published in approved 6FH5 target entry; Section1
Grid Voltage, Positive-bias value	**0 V**	Published in approved 6FH5 target entry; Section1
Cathode Current	**22 mA**	Published in approved 6FH5 target entry; Section1
Plate Dissipation	**2.2 W**	Published in approved 6FH5 target entry; Section1
Grid-Circuit Resistance, for cathode-bias operation	**1 MΩ**	Published in approved 6FH5 target entry; Section1

CAPACITANCE		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Grid to Plate 0.52	**0.52 pF**	Published in approved 6FH5 target entry; Section1
Grid to Cathode, Heater, and Internal Shield . . 3.2	**3.2 pF**	Published in approved 6FH5 target entry; Section1
Plate to Cathode, Heater, and Internal Shield . 3.2	**4 pF**	Published in approved 6FH5 target entry; Section1

CHARACTERISTIC		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Plate Voltage	**135 V**	Published in approved 6FH5 target entry; Section1

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid Voltage	**1 V**	Published in approved 6FH5 target entry; Section1
Plate Resistance (Approx.)	**5600 Ω**	Published in approved 6FH5 target entry; Section1
Transconductance	**9000 µS**	Published in approved 6FH5 target entry; Section1
Plate Current	**11 mA**	Published in approved 6FH5 target entry; Section1
Grid Voltage (Approx.) for plate current of 100 /iA	**-5.5 V**	Published in approved 6FH5 target entry; Section1

Tube Tinker

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