ELECTRONIC TUBE REFERENCE

5FV8

Voltage - Radio Detector Converter electronic tube

CONSOLIDATED TECHNICAL DATA
2 SECTIONS
CONSTRUCTION
PENTODE-TRIODE

> Medium-mu triode and sharp-cutoff pentode used together as oscillator and mixer in VHF television tuners.

General characteristics

BASE DESIGNATION	9FA	**BASE PINS**	9
NOMINAL HEATER	4.7 V / 600 mA	**PARALLEL HEATER**	– / –
HEATING	Indirect	**SERIES OPERATION**	Not specified
CATHODE ARRANGEMENT	Separate cathodes	**SECTION CONSTRUCTION**	Dissimilar

9FA - Terminal pinout

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

Section ratings

SECTION1 Triode

PLATE RESISTANCE	5000 Ω
TRANSCONDUCTANCE	0.008 S
AMPLIFICATION FACTOR	40
MAXIMUM PLATE VOLTAGE	330 V
MAXIMUM PLATE DISSIPATION	2 W
MAXIMUM CATHODE CURRENT	20 mA

Electrical characteristics cloned from explicit counterpart 6FV8; heater replaced by 5FV8 source values. Triode vertical-deflection oscillator section.

SECTION2 Pentode

PLATE RESISTANCE	200000 Ω
TRANSCONDUCTANCE	0.0065 S
MAXIMUM PLATE VOLTAGE	330 V
MAXIMUM SCREEN VOLTAGE	330 V
MAXIMUM PLATE DISSIPATION	2.3 W
MAXIMUM SCREEN DISSIPATION	0.55 W

Electrical characteristics cloned from explicit counterpart 6FV8; heater replaced by 5FV8 source values. Pentode general-purpose/IF amplifier section.

> Reference/equivalence entry for a medium-mu triode plus sharp-cutoff pentode used as a combined oscillator and mixer in VHF 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

OTHER		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Heater voltage	**4.7 V**	—
Heater current	**600 mA**	—

1961 TUNG SOL

Section 2 · Pentode

OTHER		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Heater voltage	**4.7 V**	—
Heater current	**600 mA**	—

SOURCE DATA APPENDIX

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

OTHER		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Triode typical plate voltage	**125 V**	—
Heater-cathode voltage maximum	**200 V**	—

CHARACTERISTICS		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Triode transconductance	**8000 uS**	—
Triode amplification factor	**40**	—
Triode plate resistance	**5000 ohm**	—
Heater warm-up time	**11 s**	—

APPLICATION		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Application	**Oscillator / phase inverter / vertical oscillator**	—

1965 WESTINGHOUSE DATA BOOK

Section 2 · Pentode

OTHER		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Pentode/tetrode typical plate voltage	**125 V**	—
Pentode/tetrode grid2 voltage	**125 V**	—

CHARACTERISTICS		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Pentode/tetrode transconductance	**6000 uS**	—
Pentode/tetrode plate resistance	**300000 ohm**	—

APPLICATION		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Application	**Mixer / IF / video / general-purpose amplifier**	—

SOURCE OPERATING CONDITIONS

1966 Tung Sol Electronic Tubes 1 of 4

SOURCE PDF

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

1966 TUNG SOL ELECTRONIC TUBES 1 OF 4

Section 1 · Triode

OTHER		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Plate voltage	**125 V**	TriodeSection
Grid voltage	**-1 V**	TriodeSection
Plate current	**14 mA**	TriodeSection

CHARACTERISTIC		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Transconductance	**8000 uS**	TriodeSection
Amplification factor	**40**	TriodeSection
Plate resistance	**5 kOhm**	TriodeSection

CAPACITANCE		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Grid-to-plate capacitance	**1.8 pF**	TriodeSection

1966 TUNG SOL ELECTRONIC TUBES 1 OF 4

Section 2 · Pentode

OTHER		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Maximum screen supply voltage	**330 V**	PentodeSection
Plate voltage	**125 V**	PentodeSection
Screen voltage	**125 V**	PentodeSection
Grid voltage	**-1 V**	PentodeSection
Plate current	**12 mA**	PentodeSection
Screen current	**4 mA**	PentodeSection

CHARACTERISTIC		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Transconductance	**9500 uS**	PentodeSection

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	**200 kOhm**	PentodeSection

CAPACITANCE		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Grid-to-plate capacitance	**—0.01 pF**	PentodeSection; WithShield; Maximum

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

CAPACITANCE		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Grid-to-plate capacitance	**1.8 pF**	Triode;WithoutShield
Input capacitance	**2.8 pF**	Triode;WithoutShield
Output capacitance	**1.5 pF**	Triode;WithoutShield

OTHER		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Peak negative pulse grid voltage	**250 V**	VerticalDeflection
Peak cathode current	**70 mA**	VerticalDeflection
Plate voltage	**125 V**	Typical
Grid #1 voltage	**-1 V**	Typical
Plate current	**14 mA**	Typical
Heater/filament voltage	**4.7 V**	DerivativeSheet
Heater/filament current	**600 mA**	DerivativeSheet
Heater warm-up time	**11 s**	ControlledWarmup

1971 RCA HB3 BINDER 4 OF 7

Section 2 · Pentode

CAPACITANCE		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Grid #1-to-plate capacitance	**0.02 pF**	Pentode;WithoutShield
Input capacitance	**5 pF**	Pentode;WithoutShield
Output capacitance	**2 pF**	Pentode;WithoutShield

OTHER		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Plate voltage	**125 V**	Typical
Screen voltage	**125 V**	Typical
Grid #1 voltage	**-1 V**	Typical
Plate current	**12 mA**	Typical
Screen current	**4 mA**	Typical

Tube Tinker

An independent reference for electronic tubes, vacuum tubes, and their source documents.

Catalog Tube types Full books Blog Feedback & corrections

© 2026 Tube Tinker