ELECTRONIC TUBE REFERENCE

6J6A

Voltage - Dual Triode (similar high frequency) electronic tube

CONSOLIDATED TECHNICAL DATA
2 SECTIONS
CONSTRUCTION
TRIODE-TRIODE

Improved common-cathode twin triode for VHF amplifier, mixer, and push-pull oscillator service, including Class-C RF operation in compact high-frequency equipment.

General characteristics

BASE DESIGNATION	7BF	**BASE PINS**	7
NOMINAL HEATER	6.3 V / 450 mA	**PARALLEL HEATER**	— / —
HEATING	Indirect	**SERIES OPERATION**	Not specified
CATHODE ARRANGEMENT	Common cathode	**SECTION CONSTRUCTION**	Similar

7BF - Terminal pinout

TERMINAL	SECTION	ELEMENT	STATUS
PIN1 — 2P	B	P — Plate (Anode)	CONNECTED
PIN2 — 1P	A	P — Plate (Anode)	CONNECTED
PIN3 — H	—	H — Heater	CONNECTED
PIN4 — H	—	H — Heater	CONNECTED
PIN5 — 1G1	A	G1 — Control Grid	CONNECTED
PIN6 — 2G1	B	G1 — Control Grid	CONNECTED
PIN7 — K	A	K — Cathode	CONNECTED

Section ratings

SECTION1 Triode	
PLATE RESISTANCE	7160 Ω
TRANSCONDUCTANCE	0.0053 S
AMPLIFICATION FACTOR	38
MAXIMUM PLATE VOLTAGE	300 V
MAXIMUM PLATE DISSIPATION	1.5 W
MAXIMUM CATHODE CURRENT	15 mA
Representative specification for repeated identical sections.	

SECTION2 Triode	
PLATE RESISTANCE	7160 Ω
TRANSCONDUCTANCE	0.0053 S
AMPLIFICATION FACTOR	38
MAXIMUM PLATE VOLTAGE	300 V
MAXIMUM PLATE DISSIPATION	1.5 W
MAXIMUM CATHODE CURRENT	15 mA
Second physical triode section; electrically identical twin section.	

Miniature type used as combined rf power amplifier and oscillator or as twin af amplifier. With push-pull arrangement of the grids and the plates in parallel, this typecan also be used as a mixer at frequencies as high as 600 MHz. Outlines section, 5C; requires miniature 7-contact socket. Type 5J6 is identical with 7BF type 6J6A except for heater ratings.

SOURCE OPERATING CONDITIONS

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	**100 V**	Published operating/characteristic table

CHARACTERISTIC		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Plate Current	**8.5 mA**	Published operating/characteristic table
Transconductance	**5300 uS**	Published operating/characteristic table
Plate Resistance	**7160 ohm**	Published operating/characteristic table

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 · Triode

CHARACTERISTICS		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Heater Voltage	**6.3 V**	—
Heater Current	**450 mA**	—
Maximum Operating Frequency as Mixer	**600 MHz**	—

OTHER		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Maximum Plate Voltage	**300 V**	—
Maximum Plate Dissipation	**1.5 W**	—
Typical Push-Pull Oscillator Frequency	**250 MHz**	ClassC; PushPull
Approximate RF Output Power	**1 W**	ClassC; PushPull; 250MHz

SOURCE OPERATING CONDITIONS

SOURCE PDF

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	**100 V**	ClassA1;EachSection
Plate current	**8.5 mA**	ClassA1;EachSection
Cathode bias resistor, both sections	**50 ohm**	ClassA1
RF Class C plate voltage	**150 V**	ClassC;PushPull;BothSections
RF Class C plate current	**30 mA**	ClassC;PushPull;BothSections
RF power output	**3.5 W**	ClassC;PushPull;BothSections

CHARACTERISTIC		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Heater warm-up time	**11 s**	WholeTube

SOURCE DATA APPENDIX

1971 RCA HB3 Binder 5 of 7

SOURCE PDF

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

1971 RCA HB3 BINDER 5 OF 7

Section 1 · Triode

OTHER		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Voltage (AC or DC)	**6.3 V**	Published table value
Current	**0 mA**	Published table value column 1
Current	**45 A**	Published table value column 2
Current	**6 A**	Published table value column 3
Warm-up time (Average)	**11 s**	Published table value
Grid to plate	**16 pF**	Published table value column 1
Grid to plate	**1.5 pF**	Published table value column 2
Grid to cathode and heater	**2.2 pF**	Published table value column 1
Grid to cathode and heater	**2.6 pF**	Published table value column 2
Plate to cathode and heater	**0.4 pF**	Published table value column 1
Plate to cathode and heater	**1.6 pF**	Published table value column 2
Plate to cathode and heater	**1 pF**	Published table value column 2
Plate Supply Voltage	**100 V**	Published table value
Cathode Resistorb	**50 Ω**	Published table value
Plate Current	**8.5 mA**	Published table value
PLATE VOLTAGE	**300 V**	Published table value
PLATE DISSIPATION	**1.5 W**	Published table value
Heater negative with respect to cathode	**100 V**	Published table value
Heater positive with respect to cathode	**100 V**	Published table value
For cathode-bias operation	**0.5 MΩ**	Published table value
DC PLATE VOLTAGE	**300 V**	Published table value
DC PLATE CURRENT	**15 mA**	Published table value
DC GRID CURRENT	**8 mA**	Published table value
i DC PLATE INPUT	**4.5 W**	Published table value

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
DC Plate Voltage	**150 V**	Published table value
From a grid resistor of	**625 a**	Published table value
From a cathode resistor of	**220 a**	Published table value
DC Plate Current	**30 mA**	Published table value
DC Grid Current (Approx.)e	**16 mA**	Published table value
Useful Power Output (Approx.)	**3.5 W**	Published table value
a With external shield JEDEC No	**316 a**	Published table value
a push-pull oscillator with a plate voltage oT	**150 a**	Published table value
rated plate oissi pat ion, and with a grid resistor of	**2000 a**	Published table value

CHARACTERISTICS

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Resistance (Approx.)	**7100 Ω**	Published table value
Transconductance	**5300 µS**	Published table value

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 Warm-up Time (Average)	**11 seconds**	Heater Warm-up Time (Average) 11 11 seconds
Peak Heater-Cathode Voltage ±	**100 volts**	Peak Heater-Cathode Voltage ±100 max ±100 max volts
Plate Dissipation	**1.5 watts**	Plate Dissipation 1.5 watts
Plate Input	**4 watts**	Plate Input 4.B watts

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Dissipation	**1.5 watts**	Plate Dissipation 1.5 watts
Driving Power (Approx.)	**0.35 watt**	Driving Power (Approx.) 0.35 watt
Power Output (Approx.)	**3.5 watts**	Power Output (Approx.) 3.5 watts

CAPACITANCE

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid to Plate	**1.6 pF**	Grid to Plate 1.6 1.6 pF
Grid to Cathode and Heater	**2.6 pF**	Grid to Cathode and Heater 2.2 2.6 pF
Plate to Cathode and Heater (Unit No.l)	**1.6 pF**	Plate to Cathode and Heater (Unit No.l) ... 0.4 1.6 pF
Plate to Cathode and Heater (Unit No	**1 pF**	Plate to Cathode and Heater (Unit No.2) .... 0.4 1 pF
Grid No.l to Plate	**0.49 pF**	Grid No.l to Plate 0.49 pF
Grid No.l to Cathode, Heater. Grid No	**9.5 pF**	Grid No.l to Cathode, Heater. Grid No.2, and Grid No.3 9.5 pF
Plate to Cathode, Heater, Grid No	**6.5 pF**	Plate to Cathode, Heater, Grid No.2, and Grid No.3 . . 6.5 pF

CHARACTERISTIC

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage	**300 volts**	Plate Voltage 300 volts
Grid Voltage, Positive-bias value	**0 volts**	Grid Voltage, Positive-bias value 0 volts
Plate Voltage	**100 volts**	Plate Voltage 100 volts
Amplification Factor	**38**	Amplification Factor 38
Plate Resistance (Approx.)	**7100 ohms**	Plate Resistance (Approx.) 7100 ohms
Transconductance	**5300**	Transconductance 5300 /imhos
Plate Current	**8.5 mA**	Plate Current 8.5 mA
Plate Voltage	**300 volts**	Plate Voltage 300 volts
Grid Current	**8 mA**	Grid Current 8 mA
Plate Voltage	**160 volts**	Plate Voltage 160 volts
Grid Voltage"	**-10 volts**	Grid Voltage" -10 volts
Plate Current	**30 mA**	Plate Current 30 mA
Grid Current (Approx.)	**16 mA**	Grid Current (Approx.) 16 mA
Plate Voltage	**250 volts**	Plate Voltage 60 250 volts

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-No	**250 volts**	Grid-No.2 (Screen-Grid) Voltage 250 250 volts
Grid-No.l (Control-Grid) Voltage	**-20 volts**	Grid-No.l (Control-Grid) Voltage 0 -20 volts
Plate Resistance (Approx.)	**50000 ohms**	Plate Resistance (Approx.) 50000 ohms
Transconductance	**4100**	Transconductance 4100 ^mhos
Plate Current	**43 mA**	Plate Current 180- 43 mA
Grid-No	**3.5 mA**	Grid-No.2 Current 20- 3.5 mA

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