ELECTRONIC TUBE REFERENCE

10JA8

Power - Beam (NOT sweep) electronic tube

CONSOLIDATED TECHNICAL DATA
2 SECTIONS
CONSTRUCTION
BEAMPOWER-TRIODE

> Combination receiving tube incorporating a beam-power audio output section with an additional small-signal section for television or radio receiver circuitry.

General characteristics

BASE DESIGNATION	9DX	**BASE PINS**	9
NOMINAL HEATER	10.5 V / 450 mA	**PARALLEL HEATER**	— / —
HEATING	Indirect	**SERIES OPERATION**	Not specified
CATHODE ARRANGEMENT	Separate cathodes	**SECTION CONSTRUCTION**	Dissimilar

9DX - Terminal pinout

TERMINAL	SECTION	ELEMENT	STATUS
PIN1 — 2K	B	K — Cathode	CONNECTED
PIN2 — 2G1	B	G1 — Control Grid	CONNECTED
PIN3 — 2P	B	P — Plate (Anode)	CONNECTED
PIN4 — H	—	H — Heater	CONNECTED
PIN5 — H	—	H — Heater	CONNECTED
PIN6 — 1G3	A	G3 — Suppressor Grid	CONNECTED
PIN6 — IS	A	IS — Internal Screen	CONNECTED
PIN6 — 1K	A	K — Cathode	CONNECTED
PIN7 — 1G1	A	G1 — Control Grid	CONNECTED
PIN8 — 1G2	A	G2 — Screen Grid	CONNECTED
PIN9 — 1P	A	P — Plate (Anode)	CONNECTED

Section ratings

SECTION1 Triode

PLATE RESISTANCE	39000 Ω
TRANSCONDUCTANCE	0.00155 S
AMPLIFICATION FACTOR	60
MAXIMUM PLATE VOLTAGE	300 V
MAXIMUM PLATE DISSIPATION	1 W

Promoted characteristics use the first listed triode operating point; alternate points preserved in parameters.

SECTION2 Beam Power

PLATE RESISTANCE	66000 Ω
TRANSCONDUCTANCE	0.0126 S
AMPLIFICATION FACTOR	60
MAXIMUM PLATE VOLTAGE	300 V
MAXIMUM SCREEN VOLTAGE	330 V
MAXIMUM PLATE DISSIPATION	5 W
MAXIMUM SCREEN DISSIPATION	1.5 W

Promoted characteristics use the first fully specified pentode characteristic point; alternates preserved in parameters.

> Miniature type used in color and black-and-white tele- vision receiver applications. The triode unit is used as gpy a sync separator, sync clipper, and phase inverter; the pentode unit is used as a video amplifier. Outlines section, 6E; requires miniature 9-contact socket.

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

CHARACTERISTIC		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Triode Plate Resistance	**19000 ohm**	AlternateOperatingPoint
Triode Transconductance	**3700 uS**	AlternateOperatingPoint
Triode Amplification Factor	**70**	AlternateOperatingPoint
Pentode Plate Resistance	**70000 ohm**	AlternateOperatingPoint
Pentode Transconductance	**14000 uS**	AlternateOperatingPoint
| Ep =	**200 V**	—
Grid #	**1 V**	—
Ec2	**135 V**	—
Grid #	**2 W**	—

CAPACITANCE		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Grid to Plate	**4.6 pF**	—
Input Capacitance	**2.6 pF**	—
Output Capacitance	**2.6 pF**	—

1961 TUNG SOL

Section 2 · Beam Power

CAPACITANCE		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Grid #1 to Plate	**0.1 pF**	—
Input Capacitance	**11 pF**	—
Output Capacitance	**4.4 pF**	—

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	**10.5 V**	—
Heater Current	**450 mA**	—
ControlledWarmupHeater	**1 boolean**	—
Heater Warmup Time	**11 s**	—
Plate Voltage	**200 V**	—
Grid Voltage	**-2 V**	—
Plate Current	**4 mA**	—
Plate Resistance	**17000 ohm**	—
Transconductance	**4000 uS**	—
Amplification Factor	**70**	—
Grid Cutoff Voltage	**-7 V**	—
Grid To Plate Capacitance	**2 pF**	—
Input Capacitance	**3 pF**	—
Output Capacitance	**2 pF**	—

1965 WESTINGHOUSE DATA BOOK

Section 2 · Beam Power

OTHER		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Plate Voltage Maximum	**330 V**	—
Screen Supply Voltage Maximum	**330 V**	—
Plate Dissipation Maximum	**5 W**	—
Screen Dissipation Maximum	**1.5 W**	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid1CircuitResistanceMaximum	**0.25 Mohm**	FixedBias
Grid1CircuitResistanceMaximum	**1 Mohm**	CathodeBias

CHARACTERISTIC

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid1ToPlateCapacitanceMaximum	**0.1 pF**	—
Input Capacitance	**11 pF**	—
Output Capacitance	**4.8 pF**	—

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

CHARACTERISTIC

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	**200 V**	TriodeSection
Grid 1 voltage	**-2 V**	TriodeSection
Plate current	**3.5 mA**	TriodeSection
Heater warm-up time	**11 s**	WholeTube

1966 TUNG SOL ELECTRONIC TUBES 2 OF 4

Section 2 · Beam Power

OTHER

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	**200 V**	PentodeSection;VideoAmplifier
Grid 2 voltage	**135 V**	PentodeSection;VideoAmplifier
Plate current	**18 mA**	PentodeSection;VideoAmplifier
Grid 2 current	**4 mA**	PentodeSection;VideoAmplifier

SOURCE OPERATING CONDITIONS

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

CHARACTERISTICS		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Plate Voltage	**135 V**	—
Plate Resistance	**19000 Ω**	—
Transconductance	**3700 µS**	—

OTHER		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Maximum Plate Voltage	**300 V**	—
Plate Dissipation	**1 W**	—

1971 RCA HB3 BINDER 5 OF 7

Section 2 · Beam Power

CHARACTERISTICS		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Plate Voltage	**200 V**	—
Screen Voltage	**135 V**	—
Plate Resistance	**70000 Ω**	—
Transconductance	**14000 µS**	—

OTHER		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Maximum Plate Voltage	**330 V**	—
Maximum Screen Supply Voltage	**330 V**	—
Plate Dissipation	**5 W**	—
Screen Input	**1.5 W**	—

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

CHARACTERISTIC		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Heater Voltage (ac/dc)	**10.5 volts**	Published value from supplied target entry
Heater Current	**0.45 ampere**	Published value from supplied target entry
Heater Warm-up Time	**11 seconds**	Published value from supplied target entry
Plate Voltage	**330 volts**	Published value from supplied target entry
Grid-No	**330 volts**	Published value from supplied target entry
Grid-No	**300**	Published value from supplied target entry
Grid-No.l (Control-Grid) Voltage, Positive-bias value	**0 volts**	Published value from supplied target entry
Plate Dissipation	**5 watts**	Published value from supplied target entry
Grid-No	**2**	Published value from supplied target entry
For Grid-No	**165 volts**	Published value from supplied target entry
For Grid-No	**300 volts**	Published value from supplied target entry
Plate Voltage	**200**	Published value from supplied target entry
Grid-No	**135 volts**	Published value from supplied target entry
Grid-No.l Voltage	**-1.5 volts**	Published value from supplied target entry
Amplification Factor	**70**	Published value from supplied target entry
Plate Resistance M0	**70000 ohms**	Published value from supplied target entry
Transconductance	**14000**	Published value from supplied target entry
Plate Current	**18 mA**	Published value from supplied target entry
Grid-No	**4**	Published value from supplied target entry
for plate current of	**-5 volts**	Published value from supplied target entry
(ac/dc),	**0.45 amperes**	Published value from supplied target entry
Plate Voltage	**200 volts**	Published value from supplied target entry

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-No	**150 volts**	Published value from supplied target entry
Grid-No.l Voltage	**0 volts**	Published value from supplied target entry
Amplification Factor	**46**	Published value from supplied target entry
Plate Current	**24 mA**	Published value from supplied target entry
Grid-No	**18 mA**	Published value from supplied target entry
Grid Voltage (Approx.) for plate current of	**-4.8**	Published value from supplied target entry
Grid-No	**1**	Published value from supplied target entry

CAPACITANCE

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid to Plate	**4 PF**	Published value from supplied target entry
Grid to Cathode, Pentode Cathode, Heater, Pentode Grid No	**3**	Published value from supplied target entry
Plate to Cathode. Pentode Cathode, Heater, Pentode Grid No	**3**	Published value from supplied target entry
Plate to Cathode, Heater, Grid No	**3**	Published value from supplied target entry
Plate to Triode Grid	**0.018 PF**	Published value from supplied target entry
Plate to Triode Plate	**0.17 PF**	Published value from supplied target entry

Tube Tinker

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