



ELECTRONIC TUBE REFERENCE

10GN8

Power - Pentode (NOT beam) electronic tube

CONSOLIDATED TECHNICAL DATA

2 SECTIONS

CONSTRUCTION

PENTODE-TRIODE

Miniature triode-pentode for television receivers. The triode serves sync-separator, sync-clipper, phase-inverter, or sound-IF functions, while the pentode provides video-output amplification.

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 Pentode	
PLATE RESISTANCE	60000 Ω
TRANSCONDUCTANCE	0.0115 S
AMPLIFICATION FACTOR	100
MAXIMUM PLATE VOLTAGE	330 V
MAXIMUM SCREEN VOLTAGE	330 V
MAXIMUM PLATE DISSIPATION	5 W
MAXIMUM SCREEN DISSIPATION	1.1 W
Source is a product-information/reference sheet and does not print the referenced base tube's section ratings/characteristics; promoted fields intentionally not inferred from an external datasheet.	

SECTION2 Triode	
PLATE RESISTANCE	37000 Ω
TRANSCONDUCTANCE	0.0027 S
AMPLIFICATION FACTOR	100
MAXIMUM PLATE VOLTAGE	330 V
MAXIMUM PLATE DISSIPATION	1 W
Source is a product-information/reference sheet and does not print the referenced base tube's section ratings/characteristics; promoted fields intentionally not inferred from an external datasheet.	

Miniature type used in color and black-and-white tele- vision receiver applications. Triode unit is used as , y[[7~" r T} . sync-separator, sync-clipper, phase inverter, or sound- amplifier. Pentode unit is used in output stage of Qj" video amplifier. Outlines section, 6E; requires minia- Kt Pp ture 9-contact socket. For

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

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 · Pentode

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid #1 to Plate	0.1 pF	—
Input Capacitance	11 pF	—
Output Capacitance	4.2 pF	—

1961 TUNG SOL

Section 2 · Triode

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid to Plate	4.4 pF	—
Input Capacitance	2.4 pF	—
Output Capacitance	0.36 pF	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Input: G To {H+K}	2.4 pF	—
Output: P To (Htk)	0.36 pF	—
Positive Grid #	1 V	—
Cathode Bias Resistor	100 ohm	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Warm-Up Time A	1 s	—
Total Dc And Peak	200 V	—
Nled	100 V	—



SOURCE OPERATING CONDITIONS

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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 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	200 V	PentodeSection;VideoAmplifier
Grid 2 voltage	150 V	PentodeSection;VideoAmplifier
Plate current	25 mA	PentodeSection;VideoAmplifier
Grid 2 current	5.5 mA	PentodeSection;VideoAmplifier

1966 TUNG SOL ELECTRONIC TUBES 2 OF 4

Section 2 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	250 V	TriodeSection
Grid 1 voltage	-2 V	TriodeSection
Plate current	2 mA	TriodeSection
Heater warm-up time	11 s	WholeTube



SOURCE OPERATING CONDITIONS

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1971 RCA HB3 Binder 5 of 7

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 · Pentode

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid 1 to plate capacitance	0.1 pF	Inherited from explicitly referenced 6GN8 parent type.
Input capacitance	11 pF	Inherited from explicitly referenced 6GN8 parent type.
Output capacitance	4.2 pF	Inherited from explicitly referenced 6GN8 parent type.

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	200 V	ClassA1 Inherited from explicitly referenced 6GN8 parent type.
Plate current	25 mA	ClassA1 Inherited from explicitly referenced 6GN8 parent type.
Screen voltage	150 V	ClassA1 Inherited from explicitly referenced 6GN8 parent type.
Screen current	5.5 mA	ClassA1 Inherited from explicitly referenced 6GN8 parent type.

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Instantaneous plate current	55 mA	Plate60V;Screen150V;Grid1=0V Inherited from explicitly referenced 6GN8 parent type.

1971 RCA HB3 BINDER 5 OF 7

Section 2 · Triode

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-plate capacitance	4.4 pF	Inherited from explicitly referenced 6GN8 parent type.
Input capacitance	2.4 pF	Inherited from explicitly referenced 6GN8 parent type.
Output capacitance	0.36 pF	Inherited from explicitly referenced 6GN8 parent type.

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate voltage	250 V	ClassA1 Inherited from explicitly referenced 6GN8 parent type.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate current	2 mA	ClassA1 Inherited from explicitly referenced 6GN8 parent type.



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

SOURCE PDF

1975 RCA RC30

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

1975 RCA RC30

Section 2 · 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 (Average)	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.1 (Control-Grid) Voltage, Positive-bias value	0 volt	Published value from supplied target entry
Plate Dissipation	—	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 Supply Voltage	200 volts	Published value from supplied target entry
Grid-No	150	Published value from supplied target entry
Grid-No.1 Voltage	0 volts	Published value from supplied target entry
Amplification Factor	100	Published value from supplied target entry
Plate Resistance (Approx.)	60000 ohms	Published value from supplied target entry
Transconductance	11500	Published value from supplied target entry
Plate Current	1	Published value from supplied target entry

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-No	5.5 mA	Published value from supplied target entry
Heater Voltage	7.6 volts	Published value from supplied target entry
Heater Current	0.3 ampere	Published value from supplied target entry
Plate Voltage	250 volts	Published value from supplied target entry
Grid-No	150 volts	Published value from supplied target entry
Plate Dissipation	–	Published value from supplied target entry
Grid-No	0.5 watt	Published value from supplied target entry
Cathode Current	18 mA	Published value from supplied target entry
Plate Voltage	170 volts	Published value from supplied target entry
Grid-No.1 (Control-Grid) Voltage	-1.2 volts	Published value from supplied target entry
Plate Current	10 mA	Published value from supplied target entry
Grid-No	3.3 mA	Published value from supplied target entry
Transconductance	12000	Published value from supplied target entry
Plate Resistance	0.35 megohm	Published value from supplied target entry
Amplification Factor	17	Published value from supplied target entry