

ELECTRONIC TUBE REFERENCE

8AU8

Voltage - Triode Pentode electronic tube

CONSOLIDATED TECHNICAL DATA

2 SECTIONS

CONSTRUCTION

PENTODE-TRIODE

Television triode-pentode for video/IF amplification and synchronization or sweep service.

GENERAL CHARACTERISTICS

BASE DESIGNATION	9DX	BASE PINS	9
NOMINAL HEATER	8.4 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	150000 Ω
TRANSCONDUCTANCE	0.007 S
MAXIMUM PLATE VOLTAGE	300 V
MAXIMUM SCREEN VOLTAGE	300 V
MAXIMUM PLATE DISSIPATION	3 W
MAXIMUM SCREEN DISSIPATION	1 W
MAXIMUM HEATER-CATHODE VOLTAGE	200 V
WARM-UP TIME	11 s
<i>Published promoted fields populated semantically; identical repeated sections compressed.</i>	

SECTION2 Triode	
PLATE RESISTANCE	8200 Ω
TRANSCONDUCTANCE	0.0049 S
AMPLIFICATION FACTOR	40
MAXIMUM PLATE VOLTAGE	300 V
MAXIMUM PLATE DISSIPATION	2.5 W
MAXIMUM HEATER-CATHODE VOLTAGE	200 V
WARM-UP TIME	11 s
<i>Published promoted fields populated semantically; identical repeated sections compressed.</i>	

The 8AU8 combines a sharp-cutoff pentode with a medium-mu triode for series-heater television receivers; the pentode suits video/IF service and the triode sync, clipper or sweep-oscillator functions.



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 · Pentode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	8.4 V	Rated heater condition
Heater current	450 mA	Rated heater condition

1965 SYLVANIA ELECTRONIC TUBES VOL3

Section 2 · Triode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	8.4 V	Rated heater condition
Heater current	450 mA	Rated heater condition

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Current	450 mA	Current 0.60 0.45 Ampere Grid 2 Voltage See Grid 2 Input
Warm-upTime(Approx.)A	11 s	Warm-upTime(Approx.)A 11 11 Seconds Rating Chart
Base, , ,	125 V	Base,,,,,....., E9-I) Grid 2 Voltage- 125 Volts



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 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate_voltage	200 V	VideoAmplifier
Screen_voltage	125 V	VideoAmplifier
Cathode_bias_resistor	82 ohm	VideoAmplifier

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate_current	15 mA	VideoAmplifier
Screen_current	3.4 mA	VideoAmplifier
Transconductance	7000 uS	VideoAmplifier

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-plate capacitance	0.044 pF	—
Input capacitance	7.5 pF	—
Output capacitance	3.4 pF	—

1966 TUNG SOL ELECTRONIC TUBES 2 OF 4

Section 2 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate_voltage	150 V	SyncAmplifier
Cathode_bias_resistor	150 ohm	SyncAmplifier
Heater_warmup_time	11 s	SyncAmplifier

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate_current	9 mA	SyncAmplifier
Amplification_factor	40	SyncAmplifier
Plate_resistance	6100 ohm	SyncAmplifier
Transconductance	4900 uS	SyncAmplifier

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-to-plate capacitance	2.2 pF	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Input capacitance	2.6 pF	—
Output capacitance	0.34 pF	—



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

SOURCE PDF

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

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage nominal	8.4 V	—
Heater current nominal	450 mA	—
PLATE VOLTAGE	300 V	Published source row
PLATE VOLTAGE (value 2)	300 V	Published source row
GRID-No	2	Published source row
SUPPLY VOLTAGE	300 V	Published source row
GRID-No	2	Published source row
GRID-No	2	Published source row
For grid-No	2	Published source row
For grid-No	2	Published source row
PLATE DISSIPATION	2.5 W	Published source row
PLATE DISSIPATION (value 2)	3 W	Published source row

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Current	30 mA	Published table column
Warm-up time (Average)	11 s	Published source row
Plate Supply Voltage	150 V	Published source row
Plate Supply Voltage (value 2)	200 V	Published source row

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-No	2 V	Published source row
Grid-No (value 2)	125 V	Published source row
Cathode Resistor	150 ohm	Published source row
Cathode Resistor (value 2)	82 ohm	Published source row
Plate Resistance (Approx)	8200 ohm	Published source row
Plate Resistance (Approx) (value 2)	150000 ohm	Published source row
Transconductance	4900 μS	Published source row
Transconductance (value 2)	7000 μS	Published source row
Plate Current	9 mA	Published source row
Plate Current (value 2)	15 mA	Published source row
Grid-No	2 mA	Published source row
Grid-No (value 2)	3.4 mA	Published source row

1971 RCA HB3 BINDER 5 OF 7

Section 2 · Triode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage nominal	8.4 V	—
Heater current nominal	450 mA	—

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Current	450 mA	Published table column
Warm-up time (Average)	11 s	Published source row

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