

ELECTRONIC TUBE REFERENCE

5AV8

Voltage Triode Pentode electronic tube

CONSOLIDATED TECHNICAL DATA

2 SECTIONS

CONSTRUCTION

PENTODE-TRIODE

Miniature medium-mu triode and sharp-cutoff pentode combination for signal-amplifier service.

GENERAL CHARACTERISTICS

BASE DESIGNATION	9DZ	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

9DZ - TERMINAL PINOUT

TERMINAL	SECTION	ELEMENT	STATUS
PIN1 – Pin 1	B	K – Cathode	CONNECTED
PIN2 – Pin 2	B	G1 – Control Grid	CONNECTED
PIN3 – Pin 3	B	P – Plate (Anode)	CONNECTED
PIN4 – Pin 4	–	H – Heater	CONNECTED
PIN5 – Pin 5	–	H – Heater	CONNECTED
PIN6 – Pin 6	A	G1 – Control Grid	CONNECTED
PIN7 – Pin 7	A	G3 – Suppressor Grid	CONNECTED
PIN7 – Pin 7	A	K – Cathode	CONNECTED
PIN7 – Pin 7	–	IS – Internal Screen	CONNECTED
PIN8 – Pin 8	A	G2 – Screen Grid	CONNECTED
PIN9 – Pin 9	A	P – Plate (Anode)	CONNECTED

SECTION RATINGS

SECTION1 Triode	
PLATE RESISTANCE	5750 Ω
TRANSCONDUCTANCE	0.0033 S
AMPLIFICATION FACTOR	19
MAXIMUM PLATE VOLTAGE	300 V
MAXIMUM PLATE DISSIPATION	2.5 W
<i>Published medium-mu triode Class A1 characteristics.</i>	

SECTION2 Pentode	
PLATE RESISTANCE	300000 Ω
TRANSCONDUCTANCE	0.0062 S
MAXIMUM PLATE VOLTAGE	300 V
MAXIMUM SCREEN VOLTAGE	300 V
MAXIMUM PLATE DISSIPATION	2 W
MAXIMUM SCREEN DISSIPATION	0.5 W
<i>Published sharp-cutoff pentode Class A1 characteristics.</i>	

Miniature medium-mu triode and sharp-cutoff pentode contained in a nine-pin envelope.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1950 Sylvania

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

1950 SYLVANIA

Section 2 · Pentode

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage . 4.7 Volts	4.7 V	Heater Voltage . 4.7 Volts
Heater Current . . 600 Ma	600 Ma	Heater Current . . 600 Ma
Grid No. 1 Voltage . . -6 Volts PRODUCTS INC.	-6 V	Grid No. 1 Voltage . . -6 Volts PRODUCTS INC.
Plate Current . 13 9.5 Ma RADIO TUBE DIVISION	9.5 Ma	Plate Current . 13 9.5 Ma RADIO TUBE DIVISION
Grid No. 2 Current . 2.8 Ma EMPORIUM, PA.	2.8 Ma	Grid No. 2 Current . 2.8 Ma EMPORIUM, PA.
Plate Resistance (approx.) . . 5750 300,000 Ohms Prepared and Released By The	300 Ohms	Plate Resistance (approx.) . . 5750 300,000 Ohms Prepared and Released By The
Grid No. 1 Voltage for I, = EMPORIUM, PENNSYLVANIA	1 V	Grid No. 1 Voltage for I, = EMPORIUM, PENNSYLVANIA

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate Voltage 300 300 Volts Max.	300 V	Plate Voltage 300 300 Volts Max.
Grid No. 2 Supply Voltage . 300 Volts Max.	300 V	Grid No. 2 Supply Voltage . 300 Volts Max.
Grid No. 2 Voltage . See Rating Chart	2 V	Grid No. 2 Voltage . See Rating Chart
Plate Dissipation . . 2.5 2.0 Watts Max.	2 W	Plate Dissipation . . 2.5 2.0 Watts Max.

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

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate supply voltage	200 V	ClassA1
Grid voltage	-6 V	ClassA1
Plate current	13 mA	ClassA1
Maximum fixed-bias grid circuit resistance	0.5 Mohm	—
Maximum cathode-bias grid circuit resistance	1 Mohm	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	5750 ohm	ClassA1
Transconductance	3300 uS	ClassA1
Amplification factor	19	ClassA1
Grid-to-plate capacitance	1.5 pF	—
Grid-to-cathode and heater capacitance	2 pF	—
Plate-to-cathode and heater capacitance	0.34 pF	—
Heater warm-up time	11 s	ControlledWarmUp

1971 RCA HB3 BINDER 4 OF 7
Section 2 · Pentode

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate supply voltage	200 V	ClassA1
Grid 2 supply voltage	150 V	ClassA1
Cathode resistor	180 ohm	ClassA1
Plate current	9.5 mA	ClassA1

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid 2 current	2.8 mA	ClassA1
Maximum fixed-bias grid circuit resistance	0.25 Mohm	—
Maximum cathode-bias grid circuit resistance	1 Mohm	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Plate resistance	300000 ohm	ClassA1
Transconductance	6200 uS	ClassA1
Grid 1 cutoff reference voltage	-8 V	ClassA1
Grid 1-to-plate capacitance	0.04 pF	—
Grid 1 input capacitance	7 pF	—
Plate output capacitance	3 pF	—