

ELECTRONIC TUBE REFERENCE

23DAP4

Specialized - Cathode Ray electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
CATHODERAY

Twenty-three-inch direct-view monochrome television picture tube with electrostatic focusing, magnetic deflection, and high-voltage operation. Manufacturer data documents its large-screen receiver-display construction, optical characteristics, and picture-tube operating limits.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	7
NOMINAL HEATER	6.9 V / 30 A	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Cathode Ray	
MAXIMUM PLATE VOLTAGE	22000 V
MAXIMUM SCREEN VOLTAGE	70 V
CRT-specific ratings, operating conditions, capacitances, focus/deflection, cutoff, optical, and screen data are retained in section parameters.	

23-inch 94-degree monochrome television CRT with electrostatic focus, magnetic deflection, and aluminized P4 screen.

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 · Cathode Ray

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Focusing method	Electrostatic	—
Deflection method	Magnetic	—
Heater voltage	6.3 V	—
Heater current	450 mA	—
Diagonal deflection angle	94 deg	—
Heater warm-up time	11 s	—

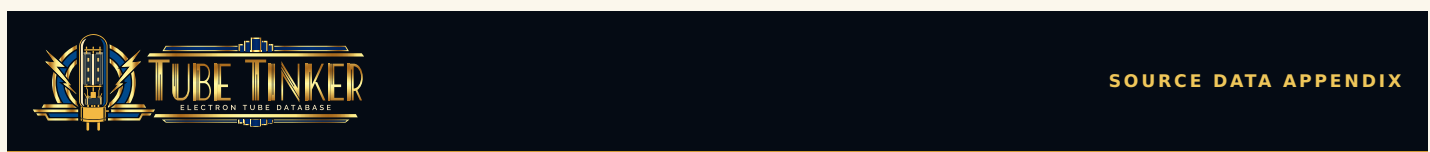
CONSTRUCTION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Phosphor	Aluminized P4	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum anode voltage	22000 V	—
Grid1 circuit resistance maximum	1.5 Mohm	—
Anode voltage minimum	11000 V	—
Typical anode voltage	16000 V	—
Typical focus-electrode voltage	0 to 400 V	—
Typical grid2 voltage	50 V	—
Focus-electrode voltage minimum	-550 V	—
Focus-electrode voltage maximum	1100 V	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater-cathode voltage maximum	200 V	—

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Application	Monochrome television picture display	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Cathode-to-all capacitance	5 pF	—
Grid1-to-all capacitance	6 pF	—



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1971 RCA HB3 Binder 1 of 7

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

1971 RCA HB3 BINDER 1 OF 7

Section 1 · Cathode Ray

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
LOW-VOLTAGE ELECTROSTATIC FOCUS	94 V	Published CRT datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
Grid No.1 to all other electrodes	6 pF	Published CRT datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
Heater Current at 6.3 volts – published value 1	6.3 V	Published CRT datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
Heater Current at 6.3 volts – published value 2	600 V	Published CRT datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
Heater Current at 6.3 volts – published value 3	30 V	Published CRT datasheet value; multiple numbers on one source row represent separate limits or operating conditions.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Warr~Up Time (Average)	11	Published CRT datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
Light transmission (Approx)	78	Published CRT datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
Projected Area of Screen	282	Published CRT datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
Combined AC & DC voltage	200 V	Published CRT datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
Anode Voltage	18000 V	Published CRT datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
Grid-No.4 Voltages	100 V	Published CRT datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
Grid-No.2 Voltage	50 V	Published CRT datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
extinction of focused raster – published value 1	35 V	Published CRT datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
extinction of focused raster – published value 2	55 V	Published CRT datasheet value; multiple numbers on one source row represent separate limits or operating conditions.

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
External conductive coating to anode	2500 mA	Published CRT datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
ANODE VOLTAGE	23000 V	Published CRT datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
GRID-No.2 VOLTAGE	70 V	Published CRT datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
HEATER VOLTAGE	6.9 V	Published CRT datasheet value; multiple numbers on one source row represent separate limits or operating conditions.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid-No.1 Circuit Resistance	1.5 mA	Published CRT datasheet value; multiple numbers on one source row represent separate limits or operating conditions.