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.l 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 Warrr~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.