ELECTRONIC TUBE REFERENCE

23CBP4

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 an aluminized P4 screen. Manufacturer documentation places it in the high-voltage receiver CRT family used for bright rectangular picture presentation.

General characteristics

BASE DESIGNATION	—	**BASE PINS**	—
NOMINAL HEATER	6.3 V / 20 A	**PARALLEL HEATER**	— / —
HEATING	Indirect	**SERIES OPERATION**	Not specified
CATHODE ARRANGEMENT	Separate cathodes	**SECTION CONSTRUCTION**	Similar

Section ratings

SECTION1 Cathode Ray

MAXIMUM PLATE VOLTAGE	23000 V

CRT-specific ratings, operating conditions, capacitances, focus/deflection, cutoff, optical, and screen data are retained in section parameters.

23-inch direct-view monochrome television CRT with electrostatic focus, magnetic deflection, aluminized P4 screen, and gray/filter faceplate construction.

SOURCE OPERATING CONDITIONS

1965 Sylvania Electronic Tubes Vol3

SOURCE PDF

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**	—
Horizontal deflection angle	**99 deg**	—
Diagonal deflection angle	**110 deg**	—
Vertical deflection angle	**82 deg**	—
Fluorescence	**White**	—
Persistence	**Short to medium**	—
Heater voltage	**6.3 V**	—
Heater current	**600 mA**	—
Light transmission	**40 %**	—

CONSTRUCTION

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Phosphor	**Aluminized P4**	—

OTHER

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum anode voltage	**23000 V**	—
Typical anode voltage	**16000 V**	—
Typical focus-electrode voltage maximum	**400 V**	—
Typical grid2 voltage	**300 V**	—
Cutoff voltage range	**-35 to -72 V**	—
Grid1 circuit resistance maximum	**1.5 Mohm**	—
Anode voltage minimum	**12000 V**	—
Focus-electrode voltage minimum	**-550 V**	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Focus-electrode voltage maximum	**1100 V**	—
Grid2 voltage minimum	**200 V**	—
Grid2 voltage maximum	**700 V**	—
X-radiation precaution	**Operate within published maximum anode-voltage rating; source carries X-radiation warning at elevated EHT.**	—

CAPACITANCE

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid1-to-all capacitance	**6 pF**	—
External conductive coating to anode capacitance maximum	**2500 pF**	—

APPLICATION

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

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	**92 V**	Published CRT datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
LOW-VOLTAGE ELECTROSTATIC FOCUS	**10 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 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	**450 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	**20 V**	Published CRT datasheet value; multiple numbers on one source row represent separate limits or operating conditions.

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