ELECTRONIC TUBE REFERENCE

23BHP4

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 / 600 mA	**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

Direct-view CRT; maximum anode voltage promoted. Source warns of possible X-radiation exposure above specified voltage conditions.

The Sylvania 23BHP4 is a 23-inch aluminized P4 television cathode-ray tube with electrostatic focus and magnetic deflection.

SOURCE OPERATING CONDITIONS

1950 Sylvania

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

1950 SYLVANIA

Section 1 · Cathode Ray

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Phosphor	**P4**	—
Deflection method	**Magnetic**	—
Focusing method	**Electrostatic**	—

SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

SOURCE PDF

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
Heater Voltage	**6.3 V**	—
Heater Current	**600 mA**	—
Heater Warm-up Time	**11 s**	—
Focusing Method	**Electrostatic text**	—
Deflection Method	**Magnetic text**	—
Horizontal Deflection Angle	**99 deg**	Approximate
Vertical Deflection Angle	**82 deg**	Approximate
Diagonal Deflection Angle	**110 deg**	Approximate
Phosphor	**Aluminized P4 text**	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Fluorescence	**White text**	—
Persistence	**Short to Medium text**	—
Light Transmittance	**40 percent**	Approximate
Cathode-to-All Capacitance	**5 pF**	Approximate
Grid1-to-All Capacitance	**6 pF**	Approximate
External Coating-to-Anode Capacitance Minimum	**1700 pF**	—
External Coating-to-Anode Capacitance Maximum	**2500 pF**	—
Anti-Reflection Safety Plate	**Yes text**	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum Anode Voltage	**22000 V**	—
Minimum Anode Voltage	**12000 V**	—
Maximum Grid2 Voltage	**70 V**	—
Maximum Heater-Cathode Voltage During Warmup	**450 V**	Duration<=15s
Maximum Heater-Cathode Voltage After Warmup	**200 V**	—
Typical Anode Voltage	**16000 V**	—
Typical Grid2 Voltage	**50 V**	—
Focus Voltage Minimum	**0 V**	—
Focus Voltage Maximum	**400 V**	—
Cutoff Voltage Minimum	**32 V**	—
Cutoff Voltage Maximum	**47 V**	—
Maximum Grid1 Circuit Resistance	**1.5 Mohm**	—
Drive Mode	**Cathode Drive text**	—

Tube Tinker

An independent reference for electronic tubes, vacuum tubes, and their source documents.

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