

ELECTRONIC TUBE REFERENCE

23DCP4

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	—
NOMINAL HEATER	6.3 V / 450 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Cathode Ray	
MAXIMUM PLATE VOLTAGE	23500 V
<i>Published electrical limits promoted from the source. Passive microwave reference cavities have their electrical frequency/Q values in TUBE_SECTION_PARAMETER because no applicable promoted frequency field exists in the fixed section schema.</i>	

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



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1947 Westinghouse

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

1947 WESTINGHOUSE

Section 1 · Cathode Ray

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HeaterVoltageNominal	6.3 V	Nominal
HeaterCurrentNominal	450 mA	Nominal
MaximumElectrodeOrAnodeVoltage	23500 V	—
Grid2VoltageMaximum	70 V	—

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Warmup Time	11 s	—



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 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	30 V	—
Focus-electrode voltage minimum	-550 V	—
Focus-electrode voltage maximum	1100 V	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater-cathode voltage maximum	200 V	—
Grid2 voltage minimum	20 V	—
Grid2 voltage maximum	70 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	—

TUBE TINKER

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

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