ELECTRONIC TUBE REFERENCE

23ETP4

Specialized - Cathode Ray electronic tube

CONSOLIDATED TECHNICAL DATA
1 SECTION
CONSTRUCTION
CATHODERAY

Twenty-three-inch 110-degree RCA Pan-O-Ply monochrome television CRT with low-voltage electrostatic focus, magnetic deflection, integral implosion protection, and a 600 mA heater for receiver display service.

General characteristics

BASE DESIGNATION	—	**BASE PINS**	7
NOMINAL HEATER	6.3 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	23000 V
MAXIMUM SCREEN VOLTAGE	300 V

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

23-inch 110-degree RCA Pan-O-Ply monochrome television CRT with 600 mA heater.

SOURCE OPERATING CONDITIONS

1964 RMA EIA

SOURCE PDF

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

1964 RMA EIA

Section 1 · Cathode Ray

CHARACTERISTICS		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Focusing method	**Electrostatic**	—
Deflection method	**Magnetic**	—
Horizontal deflection angle	**99 deg**	—
Vertical deflection angle	**82 deg**	—
Diagonal deflection angle	**110 deg**	—
Heater voltage	**6.3 V**	—
Heater current	**600 mA**	—

CAPACITANCE		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Cathode-to-all capacitance	**5 pF**	—
Grid1-to-all capacitance	**6 pF**	—
External coating capacitance minimum	**1700 pF**	—
External coating capacitance maximum	**2500 pF**	—

OTHER		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Anode voltage maximum	**23000 V**	—
Anode voltage minimum	**12000 V**	—
Typical anode voltage	**16000 V**	—
Typical focus-electrode voltage	**250 V**	—
Typical grid2 voltage	**50 V**	—

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

SOURCE OPERATING CONDITIONS

SOURCE PDF

1971 RCA HB3 Binder 1 of 7

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1971 RCA HB3 BINDER 1 OF 7

Section 1 · Cathode Ray

CHARACTERISTICS		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
LOW-VOLTAGE ELECTROSTATIC FOCUS	**10 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.
Heater WarnrUp Time (Average)	**11**	Published CRT datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
Light Transmission at center (Approx.)	**42**	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.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode Voltage	**18000 V**	Published CRT datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
Grid-No.4 Voltageb	**2 V**	Published CRT datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
Grid-No.2 Voltage	**300 V**	Published CRT datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
extinction of focused raster — published value 1	**28 V**	Published CRT datasheet value; multiple numbers on one source row represent separate limits or operating conditions.
extinction of focused raster — published value 2	**62 V**	Published CRT datasheet value; multiple numbers on one source row represent separate limits or operating conditions.

OTHER

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode Voltage	**23000 V**	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.
Grid-No.1 Circuit Resistance	**1.5 mA**	Published CRT datasheet value; multiple numbers on one source row represent separate limits or operating conditions.

Tube Tinker

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