ELECTRONIC TUBE REFERENCE

5BHP7

Specialized - Cathode Ray electronic tube

CONSOLIDATED TECHNICAL DATA
1 SECTION
CONSTRUCTION
CATHODERAY

Five-inch oscilloscope CRT with electrostatic focusing and deflection and a P7 phosphor screen. The family uses a flat face and high-sensitivity electron optics for direct waveform and instrument display.

General characteristics

BASE DESIGNATION	14AG	**BASE PINS**	12
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	13200 V

CRT highest published anode/accelerating voltage is promoted to MaxPlateVoltage; additional electrode, deflection, optical, and capacitance data are retained as parameters.

Five-inch direct-view oscilloscope CRT with flat faceplate, electrostatic focus/deflection, helical-resistor post-deflection acceleration, and high deflection sensitivity.

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

CAPACITANCE

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Cathode to all other electrodes capacitance	**4.6 pF**	—
Grid No. 1 to all other electrodes capacitance	**6.4 pF**	—
Deflection plates D1-D2 capacitance	**1.9 pF**	—
Deflection plates D3-D4 capacitance	**1.5 pF**	—
D1 to all other electrodes except D2 capacitance	**3.5 pF**	—
D2 to all other electrodes except D1 capacitance	**3.5 pF**	—
D3 to all other electrodes except D4 capacitance	**2.8 pF**	—
D4 to all other electrodes except D3 capacitance	**2.8 pF**	—

CHARACTERISTICS

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Post-accelerator helix resistance	**200–600 MOhm**	—
Maximum pattern distortion at 100% useful scan	**1.5 %**	—
Maximum undeflected spot-position deviation	**5 mm**	—
Useful scan D1-D2	**10 cm**	—
Useful scan D3-D4	**4 cm**	—

OTHER		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Maximum anode No. 2 input	**6 W**	—
Maximum anode No. 3 voltage	**13200 V**	—
Maximum isolation shield voltage	**2300 V**	—
Maximum deflection-plate shield voltage	**2300 V**	—
Maximum anode No. 2 voltage	**2200 V**	—
Maximum anode No. 1 focus voltage	**880 V**	—
Maximum negative grid No. 1 bias magnitude	**200 V**	—
Peak heater-cathode voltage during warm-up	**200 V**	—
Peak heater-cathode voltage after warm-up	**180 V**	—
Peak voltage between anode No. 2 and any deflection plate	**550 V**	—
Typical anode No. 3 voltage	**10000 V**	—
Typical isolation shield voltage range	**1575–1700 V**	—
Typical deflection-plate shield voltage range	**1575–1700 V**	—
Typical anode No. 2 voltage	**1670 V**	—
Focus voltage range	**180–590 V**	—
Grid No. 1 cutoff voltage range	**-80–-50 V**	—
Deflection factor D1-D2	**70–85 V/in**	—
Deflection factor D3-D4	**15–18.3 V/in**	—

CIRCUITVALUE		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Grid No. 1 circuit resistance maximum	**1.5 MOhm**	—

Tube Tinker

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

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