



ELECTRONIC TUBE REFERENCE

5BHP7A

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 A-variant with flat faceplate, electrostatic focus/deflection, helical-resistor post-deflection acceleration, and high deflection sensitivity.

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

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	—

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

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