



ELECTRONIC TUBE REFERENCE

5CP1A

Specialized - Cathode Ray electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

CATHODERAY

Five-inch post-deflection-acceleration oscilloscope CRT with electrostatic focusing and deflection. Designed for high-brightness oscillographic display, it combines precise electrostatic beam control with increased final acceleration.

GENERAL CHARACTERISTICS

BASE DESIGNATION	612-37	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

SECTION 1 Cathode Ray	
MAXIMUM PLATE VOLTAGE	4000 V
<i>CRT maximum accelerating/anode/ultor voltage is promoted to MaxPlateVoltage; additional electrode ratings, capacitances, operating conditions, deflection/focus and optical data are preserved as parameters.</i>	

5-inch post-deflection-acceleration electrostatic-focus and electrostatic-deflection cathode-ray tube for high-brightness oscillographic display.



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

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

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage	6.3 V	Nominal
Heater Current	600 mA	Nominal



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1960 Du Mont

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

1960 DU MONT

Section 1 · Cathode Ray

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Focusing method	1 code	Electrostatic
Deflection method	1 code	Electrostatic
Deflection factor D1-D2	—	Published range 78 to 106 V/in
Minimum useful screen	414 in	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Accelerator voltage maximum	4000 V	—
Accelerator voltage	2000 V	—
Post-accelerator voltage maximum	4000 V	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Post-accelerator voltage	4000 V	—
Grid No. 1 voltage	—	Published range -90 to -30 V
Grid No. 1 negative bias maximum	200 V	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Cathode to all other electrodes	9 pF	Approximate or first published bound
Grid No. 1 to all other electrodes	8 pF	Approximate or first published bound



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	Approximate
Focusing Method	Electrostatic text	—
Deflection Method	Electrostatic text	—
Fluorescence	Green text	—
Persistence	Medium text	—
Cathode-to-All Capacitance	9 pF	Approximate
Grid1-to-All Capacitance	8 pF	Approximate
Deflection Plates 1-2 Capacitance	2 pF	Approximate
Deflection Plates 3-4 Capacitance	2 pF	Approximate

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Deflecting Plate 1-to-All Capacitance	9 pF	Approximate
Deflecting Plate 2-to-All Capacitance	9 pF	Approximate
Deflecting Plate 3-to-All Capacitance	7 pF	Approximate
Deflecting Plate 4-to-All Capacitance	8 pF	Approximate

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum Anode3 Voltage	4000 V	—
Maximum Anode2 Voltage	2000 V	—
Maximum Anode1 Voltage	1000 V	—
Maximum Grid1 Negative Bias	200 V	—
Maximum Grid1 Positive Peak	2 V	—
Maximum Heater-Cathode Voltage	125 V	EitherPolarity
Maximum Anode2-to-Deflection-Plate Voltage	500 V	—
Anode3 Voltage	4000 V	—
Anode2 Voltage	2000 V	—
Focus Voltage Minimum	375 V	Anode1
Focus Voltage Maximum	690 V	Anode1
Grid1 Cutoff Voltage Minimum	-90 V	—
Grid1 Cutoff Voltage Maximum	-30 V	—
Deflection Factor Plates 1-2	92 V/in	—
Deflection Factor Plates 3-4	78 V/in	—
Maximum Grid1 Circuit Resistance	1.5 Mohm	—
Maximum Deflection Circuit Resistance	5 Mohm	—



1971 RCA HB3 Binder 1 of 7

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

1971 RCA HB3 BINDER 1 OF 7
Section 1 · Cathode Ray

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum anode 2 voltage	2000 V	—
Maximum anode 1 voltage	1000 V	—
Peak heater-cathode voltage	125 V	HeaterNegative
Peak heater-cathode voltage	125 V	HeaterPositive
Maximum accelerating/anode voltage	4000 V	—
ANODE-No.3 VOLTAGE	4000 V	Maximum
ANODE-No.2' VOLTAGE	2000 V	Maximum
ANODE-No.1 VOLTAGE	1000 V	Maximum
ANY DEFLECTING ELECTRODE	500 V	Maximum
Grid-No.1-Circuit Resistance 1	5 MΩ	Maximum
'~ It is recommended that anode-x0.3 voltage De not less Loan	3000 V	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid 1 to all other electrodes capacitance	8 pF	Approximate
Cathode to all other electrodes capacitance	9 pF	Approximate

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid No.1 to All Other Electrodes	8 pF	—
Cathode to All Other Electrodes	9 pF	—
DJ1 to All Other Electrodes	9 pF	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
0.12 to All Other Electrodes	9 pF	—
DJ3 to All Other Electrodes	7 pF	—
DJ4 to All Other Electrodes	8 pF	—

TUBE TINKER

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