

ELECTRONIC TUBE REFERENCE

5WP11

Specialized - Cathode Ray electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
CATHODERAY

Five-inch P11 cathode-ray instrument tube for oscillographic and measurement display, with manufacturer-specified electrostatic focusing, deflection, and beam-control characteristics.

GENERAL CHARACTERISTICS

BASE DESIGNATION	12C	BASE PINS	7
NOMINAL HEATER	6.3 V / 20 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Cathode Ray	
MAXIMUM PLATE VOLTAGE	27000 V
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.	

Five-inch electrostatic-focus/magnetic-deflection CRT; P11 blue, short persistence.



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

CHARACTERISTICS

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Deflection method	Magnetic	—
Focusing method	Electrostatic	—



SOURCE OPERATING CONDITIONS

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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

CHARACTERISTIC

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage	6.3 V	—
Heater Current	600 mA	—
FocusingMethod	Electrostatic	—
DeflectionMethod	Magnetic	—
Deflection Angle	50 degree	—
Phosphor	P11 blue, short persistence	—
MinimumUsefulScreenDiameter	4.25 in	—
Cathode To All Capacitance	5 pF	—
Grid1ToAllCapacitanceMaximum	7.5 pF	—
ExternalNeckCoatingToAnode2CapacitanceMinimum	100 pF	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
ExternalNeckCoatingToAnode2CapacitanceMaximum	500 pF	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode2VoltageMaximum	30000 V	—
Anode1VoltageMaximum	6600 V	—
Grid2VoltageMaximum	385 V	—
Grid1NegativeBiasMagnitudeMaximum	165 V	—
Grid1PositiveBiasMaximum	0 V	—
Grid1PositivePeakVoltageMaximum	2 V	—
HeaterCathodeVoltageMaximum	450 V	Warmup<=15s;HeaterNegative
HeaterCathodeVoltageMaximum	140 V	AfterWarmup;HeaterNegative
HeaterCathodeVoltageMaximum	140 V	HeaterPositive
Anode2Voltage	27000 V	—
Anode1VoltageForFocus	4200 to 5400 V	—
Grid2 Voltage	200 V	—
Grid1VoltageForCutoff	-42 to -98 V	—
Grid1CircuitResistanceMaximum	1.5 Mohm	—
Anode2Current	20 uA	—
Anode1CurrentMaximum	25 uA	—



SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

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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 1 voltage	6000 V	—
Maximum grid 2 voltage	350 V	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum grid 1 negative-bias voltage	150 V	NegativeBias
Maximum grid 1 positive-bias voltage	0 V	PositiveBias
Maximum grid 1 positive-peak voltage	2 V	PositivePeak
Peak heater-cathode voltage	410 V	HeaterNegativeWarmup
Peak heater-cathode voltage	125 V	HeaterNegativeAfterWarmup
Peak heater-cathode voltage	125 V	HeaterPositive
Typical anode 2 voltage	27000 V	TypicalOperation
Maximum accelerating/anode voltage	27000 V	—
ANODE-No.2 VOLTAGE	27000 V	Maximum
Anode-No.2 Voltage'	27000 V	—
Grid-No.1 Voltage for Visual. Cutoff	-42--98 V	—
Grid-No.2 Current Range	-15--15 uA	—
Grid-No.1-Circuit Resistance	1.5 MΩ	Maximum

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid 1 to all other electrodes capacitance	7.5 pF	Approximate
Cathode to all other electrodes capacitance	5 pF	Approximate
External conductive coating to anode 2 capacitance maximum	500 pF	Maximum
External conductive coating to anode 2 capacitance minimum	100 pF	Minimum

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Current	6 A	—

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

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