



ELECTRONIC TUBE REFERENCE

21EYP4

Specialized - Cathode Ray electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

CATHODERAY

Twenty-one-inch direct-view monochrome television picture tube with magnetic deflection and high-voltage operation. Manufacturer documentation describes its focusing system, picture-screen construction, and receiver-display characteristics for large-screen television service.

GENERAL CHARACTERISTICS

BASE DESIGNATION	12L	BASE PINS	6
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** 22000 V

CRT maximum accelerating/anode/ultor voltage is promoted to MaxPlateVoltage; additional electrode ratings, capacitances, operating conditions, focus/deflection and optical data are preserved as parameters.

Sylvania 21EYP4 direct-view monochrome television CRT with electrostatic focus, magnetic deflection, and Aluminized P4 white. Published high-voltage ratings, focus/cutoff ranges, capacitances, and typical operating conditions were extracted.

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

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage	6.3 V	—
Heater Current	600 mA	—
FocusingMethod	Electrostatic	—
DeflectionMethod	Magnetic	—
Phosphor	Aluminized P4 white	—
DeflectionAngles	67H/53V/72D	—
Cathode To All Capacitance	5 pF	—
Grid1 To All Capacitance	6 pF	—
ExternalConductiveCoatingToAnodeCapacitanceMaximum	2500 pF	—
ExternalConductiveCoatingToAnodeCapacitanceMinimum	2000 pF	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
AnodeVoltageMaximum	22000 V	—
AnodeVoltageMinimum	10000 V	—
FocusingElectrodeVoltageRangeMaximum	-550 to +1100 V	—
Grid2VoltageMaximum	700 V	—
Grid2VoltageMinimum	350 V	—
Grid1NegativeBiasMagnitudeMaximum	155 V	—
Grid1PositivePeakVoltageMaximum	2 V	—
HeaterCathodeVoltageMaximum	450 V	Warmup<=15s;HeaterNegative
HeaterCathodeVoltageMaximum	200 V	AfterWarmup
HeaterCathodeVoltageMaximum	200 V	HeaterPositive

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode Voltage	18000 V	—
FocusingElectrodeVoltage	0 to +400 V	—
Grid1VoltageForCutoff	-35 to -72 V	—
Grid1CircuitResistanceMaximum	1.5 Mohm	—



SOURCE OPERATING CONDITIONS

SOURCE PDF

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

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater current	60 mA	At6.3V

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Cathode to all other electrodes	5 pF	—
External conductive coating to anode capacitance	—1500 pF	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Minimum anode/ultor voltage	12000 V	—
Maximum grid 2 voltage	700 V	—
Maximum grid 1 negative-bias voltage	180 V	NegativeBias
Maximum grid 1 positive-bias voltage	0 V	PositiveBias
Maximum grid 1 positive-peak voltage	2 V	PositivePeak
Maximum grid 1 negative-peak voltage	220 V	NegativePeak

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak heater-cathode voltage	200 V	HeaterNegativeOperating
Peak heater-cathode voltage	200 V	HeaterPositive
Projected screen area	262 in²	—
Typical anode/ultor voltage	18000 V	—

TUBE TINKER

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

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