

ELECTRONIC TUBE REFERENCE

21ATP4A

Specialized - Cathode Ray electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
CATHODERAY

Twenty-one-inch direct-view monochrome television picture tube designed for large-screen receiver service. Manufacturer data documents its magnetic scanning system, high-voltage operation, and picture-tube optical and electrical characteristics.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	5
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	1 V
MAXIMUM SCREEN VOLTAGE	5 V
CRT ratings, operating conditions, capacitances, optical and deflection data retained as parameters.	

Direct-view cathode-ray picture tube for television display service. Electrical ratings, operating conditions, capacitances, optical data, and construction details were extracted from the supplied datasheet.



SOURCE OPERATING CONDITIONS

1961 Tung Sol

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

1961 TUNG SOL

Section 1 · Cathode Ray

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	6.3 V	Nominal
Heater current	600 mA	Nominal
Maximum grid 2 voltage	500 V	—
Typical grid 2 voltage	500 V	Typical operating conditions

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Diagonal deflection angle	90 deg	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Cathode to all other electrodes	773 pF	Approximate



SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1966 Tung Sol Electronic Tubes 4 of 4

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

1966 TUNG SOL ELECTRONIC TUBES 4 OF 4

Section 1 · Cathode Ray

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HEATER VOLTAGE	6.3 V	Published CRT datasheet value; multiple values on a row correspond to separate source-table conditions or limits.
HEATER POSITIVE WITH RESPECT TO CATHODE	1 V	Published CRT datasheet value; multiple values on a row correspond to separate source-table conditions or limits.
ION TRAP MAGNET FIELD STRENGTH (APPROX.)	35 mA	Published CRT datasheet value; multiple values on a row correspond to separate source-table conditions or limits.
CURRENT OF 100 NILROANP EKES 0X A 19 1/8" X 15" PICTURE SIZE. – value 1	1	Published CRT datasheet value; multiple values on a row correspond to separate source-table conditions or limits.
CURRENT OF 100 NILROANP EKES 0X A 19 1/8" X 15" PICTURE SIZE. – value 2	8	Published CRT datasheet value; multiple values on a row correspond to separate source-table conditions or limits.
CURRENT OF 100 NILROANP EKES 0X A 19 1/8" X 15" PICTURE SIZE. – value 3	15	Published CRT datasheet value; multiple values on a row correspond to separate source-table conditions or limits.

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
MAXIMUM DC ANODE, GRID #3, GRID #5 VOLTAGE ' – value 1	3 V	Published CRT datasheet value; multiple values on a row correspond to separate source-table conditions or limits.
MAXIMUM DC ANODE, GRID #3, GRID #5 VOLTAGE ' – value 2	5 V	Published CRT datasheet value; multiple values on a row correspond to separate source-table conditions or limits.
MAXIMUM DC ANODE, GRID #3, GRID #5 VOLTAGE ' – value 3	1 V	Published CRT datasheet value; multiple values on a row correspond to separate source-table conditions or limits.
MAXIMUM DC GRID #4 VOLTAGE (FOCUSING ELECTRODE) -500 TO }1000 – value 1	4 V	Published CRT datasheet value; multiple values on a row correspond to separate source-table conditions or limits.
MAXIMUM DC GRID #4 VOLTAGE (FOCUSING ELECTRODE) -500 TO }1000 – value 2	-5 V	Published CRT datasheet value; multiple values on a row correspond to separate source-table conditions or limits.
MAXIMUM DC GRID #4 VOLTAGE (FOCUSING ELECTRODE) -500 TO }1000 – value 3	1000 V	Published CRT datasheet value; multiple values on a row correspond to separate source-table conditions or limits.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
MAXIMUM DC GRID #2 VOLTAGE – 2 V value 1		Published CRT datasheet value; multiple values on a row correspond to separate source-table conditions or limits.
MAXIMUM DC GRID #2 VOLTAGE – 5 V value 2		Published CRT datasheet value; multiple values on a row correspond to separate source-table conditions or limits.
MAXIMUM GRID #i CIRCUIT RESISTANCE	1.5 mA	Published CRT datasheet value; multiple values on a row correspond to separate source-table conditions or limits.