

Large P4 monochrome television picture tube documented for high-voltage direct-view service, using magnetic deflection and manufacturer-specified focusing and beam-control arrangements for type 21AVP4B.

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

SECTION1 Cathode Ray	
MAXIMUM PLATE VOLTAGE	20000 V
MAXIMUM SCREEN VOLTAGE	500 V
Published CRT ratings, operating conditions, capacitances, optical and deflection data are retained in parameter rows.	

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	0 V	—
Typical grid 2 voltage	0 V	Typical operating conditions

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Horizontal deflection angle	67 deg	—
Diagonal deflection angle	72 deg	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Cathode to all other electrodes	5 pF	Approximate



SOURCE OPERATING CONDITIONS

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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
GRID #1 TO ALL OTHER ELECTRODES – value 1	1	Published CRT datasheet value; multiple values on a row correspond to separate source-table conditions or limits.
GRID #1 TO ALL OTHER ELECTRODES – value 2	6	Published CRT datasheet value; multiple values on a row correspond to separate source-table conditions or limits.
MINIMUM EXTERNAL CONDUCTIVE COATING TO ANODE	750	Published CRT datasheet value; multiple values on a row correspond to separate source-table conditions or limits.
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.
OC ANODE, GR t0 #} 1 GRID #5 VOLTA GE A – value 1	1 V	Published CRT datasheet value; multiple values on a row correspond to separate source-table conditions or limits.
OC ANODE, GR t0 #} 1 GRID #5 VOLTA GE A – value 2	5 V	Published CRT datasheet value; multiple values on a row correspond to separate source-table conditions or limits.
OC ANODE, GR t0 #} 1 GRID #5 VOLTA GE A – value 3	1 V	Published CRT datasheet value; multiple values on a row correspond to separate source-table conditions or limits.
DC GRID #4 VOLTA GEB – value 1	4 V	Published CRT datasheet value; multiple values on a row correspond to separate source-table conditions or limits.
DC GRID #4 VOLTA GEB – value 2	72 V	Published CRT datasheet value; multiple values on a row correspond to separate source-table conditions or limits.
DC GRID #4 VOLTA GEB – value 3	396 V	Published CRT datasheet value; multiple values on a row correspond to separate source-table conditions or limits.
OC GRID #2 VOLTAGE – value 1	2 V	Published CRT datasheet value; multiple values on a row correspond to separate source-table conditions or limits.
OC GRID #2 VOLTAGE – value 2	3 V	Published CRT datasheet value; multiple values on a row correspond to separate source-table conditions or limits.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
DC GRID #1 VOLTAGE C – value 1	1 V	Published CRT datasheet value; multiple values on a row correspond to separate source-table conditions or limits.
DC GRID #1 VOLTAGE C – value 2	2 V	Published CRT datasheet value; multiple values on a row correspond to separate source-table conditions or limits.
DC GRID #1 VOLTAGE C – value 3	72 V	Published CRT datasheet value; multiple values on a row correspond to separate source-table conditions or limits.
VOLTAGE SHOULD MO BE LESS THAN 14,000 VOLTS• – value 1	14 V	Published CRT datasheet value; multiple values on a row correspond to separate source-table conditions or limits.
VOLTAGE SHOULD MO BE LESS THAN 14,000 VOLTS• – value 2	0 V	Published CRT datasheet value; multiple values on a row correspond to separate source-table conditions or limits.
BFOCUS WITH ANODE CURRENT OF 100 MILLIAMPERES•	100	Published CRT datasheet value; multiple values on a row correspond to separate source-table conditions or limits.
CATHODE THERMIONIC INVOLVE VOLTAGE IN EXCESS OF 16 KILOVOLTS•	16 V	Published CRT datasheet value; multiple values on a row correspond to separate source-table conditions or limits.

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
MAXIMUM EXTERNAL CONDUCTIVE COATING TO ANODE	1500 mA	Published CRT datasheet value; multiple values on a row correspond to separate source-table conditions or limits.
MAXIMUM DC ANODE, GRID #}, GRID #5 VOLTAGE A 20 000 – value 1	5 V	Published CRT datasheet value; multiple values on a row correspond to separate source-table conditions or limits.
MAXIMUM DC ANODE, GRID #}, GRID #5 VOLTAGE A 20 000 – value 2	2 V	Published CRT datasheet value; multiple values on a row correspond to separate source-table conditions or limits.
MAXIMUM DC ANODE, GRID #}, GRID #5 VOLTAGE A 20 000 – 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	4 V	Published CRT datasheet value; multiple values on a row correspond to separate source-table conditions or limits.
MAXIMUM DC GRID #2 VOLTAGE – value 1	2 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 – value 2	5 V	Published CRT datasheet value; multiple values on a row correspond to separate source-table conditions or limits.
MAXIMUM GRID #1 VOLTAGE	1 V	Published CRT datasheet value; multiple values on a row correspond to separate source-table conditions or limits.
MAXIMUM GRID #1 CIRCUIT RESISTANCE – value 1	1 mA	Published CRT datasheet value; multiple values on a row correspond to separate source-table conditions or limits.
MAXIMUM GRID #1 CIRCUIT RESISTANCE – value 2	1.5 mA	Published CRT datasheet value; multiple values on a row correspond to separate source-table conditions or limits.



SOURCE OPERATING CONDITIONS

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1968 General Electric Co

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

1968 GENERAL ELECTRIC CO

Section 1 · Cathode Ray

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Typical Anode Voltage	16000 V	—
Typical Grid No. 2 Voltage	300 V	—
Grid No. 1 Maximum Negative Bias	125 V	—
Grid No. 1 Maximum Positive Peak	2 V	—

TUBE TINKER

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