ELECTRONIC TUBE REFERENCE

24TP4

Specialized - Cathode Ray electronic tube

CONSOLIDATED TECHNICAL DATA
1 SECTION
CONSTRUCTION
CATHODERAY

Twenty-four-inch direct-view monochrome television picture tube with a P4 screen and magnetic deflection. Manufacturer documentation provides the high-voltage operating, focusing, optical, and capacitance characteristics required for receiver display service.

General characteristics

BASE DESIGNATION	12N	**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	0 V
MAXIMUM SCREEN VOLTAGE	500 V

CRT electrode, focus, deflection and optical data preserved in parameter rows.

Direct-view cathode-ray picture tube intended for television display service. The supplied Tung-Sol datasheet provides electrical ratings, operating conditions, capacitances, optical characteristics, focusing and deflection information. Features an aluminized screen where specified by this designation.

SOURCE OPERATING CONDITIONS

1961 Tung Sol

SOURCE PDF

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**
Maximum Anode Voltage	**20000 V**	—
Typical Anode Voltage	**14000 V**	—
Maximum Grid2 Voltage	**500 V**	—
Typical Grid2 Voltage	**200 V**	—

CHARACTERISTIC		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
FocusingMethod	**Magnetic**	—
DeflectingMethod	**Magnetic**	—
DiagonalDeflectionAngleApproximate	**90 degree**	—
PhosphorNumber	**4**	—
FluorescentColor	**White**	—

SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

1966 Tung Sol Electronic Tubes 4 of 4

SOURCE PDF

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**
MAGNETIC FOCUS 8 DEFLECTION	**8**	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
RECTANGULAR GLASS CONSTRUCTION	**10**	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
DIRECT	**1**	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
GRID #1 TO ALL OTHER — value 1	**1**	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
GRID #1 TO ALL OTHER — value 2	**0**	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
GRID #1 TO ALL OTHER — value 3	**6**	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
MINIMUM EXTERNAL CONDUCTIVE COATING TO ANODE	**250**	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
PHOSPHOR	**4**	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
FACEPLATE LIGHT TRANSMISSION — value 1	**11 percent**	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
FACEPLATE LIGHT TRANSMISSION — value 2	**72 percent**	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
HEATER VOLTAGE	**3 V**	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
HEATER CURRENT	**0 mA**	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
HEATER NE 6ATIVE WITH RESPECT TO CATHODE	**6**	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
HEATER POSITIVE WITH RESPECT TO CATHODE — value 1	**1 V**	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
HEATER POSITIVE WITH RESPECT TO CATHODE — value 2	**0 V**	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
DC ANOOE VOLTAGE — value 1	**1 V**	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
DC ANOOE VOLTAGE — value 2	**0 V**	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
DC GRID #2 VOLTAGE — value 1	**2 V**	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
DC GRID #2 VOLTAGE — value 2	**300 V**	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
DC GRID #i VOL TAGE A — value 1	**1 V**	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
DC GRID #i VOL TAGE A — value 2	**33 V**	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
DC GRID #i VOL TAGE A — value 3	**77 V**	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
DC FOCUSING COIL CURRENT S (APPROX.) — value 1	**110 mA**	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
DC FOCUSING COIL CURRENT S (APPROX.) — value 2	**10 mA**	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
DC ION TRAP CURRENT STANDARD COIL #111 (A PPROX.) — value 1	**111 mA**	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
DC ION TRAP CURRENT STANDARD COIL #111 (A PPROX.) — value 2	**85 mA**	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
DC ION TRAP CURRENT STANDARD COIL #111 (A PPROX.) — value 3	**50 mA**	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
A VI SU AL E%TI NOTION OF UN DE ELECTED FOCUSED SPOT.	**0**	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
BFOR STANDARD FOCUS LOLL N109. — value 1	**1011**	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
BFOR STANDARD FOCUS LOLL N109. — value 2	**9**	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.

OTHER

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
MAXIMUM EXTERNAL CONDUCTIVE COA?I NG TO ANODE — value 1	**1**	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
MAXIMUM EXTERNAL CONDUCTIVE COA?I NG TO ANODE — value 2	**750**	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
MAXIMUM DC ANODE VOLTAGE	**0 V**	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
MAXIMUM DC GRID #2 VOLTAGE — value 1	**2 V**	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
MAXIMUM DC GRID #2 VOLTAGE — value 2	**500 V**	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
MAXIMUM GRID #1 VOLTAGE	**1 V**	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
MAXIMUM GRID #1 CIRCUIT RESISTANCE — value 1	**1**	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
MAXIMUM GRID #1 CIRCUIT RESISTANCE — value 2	**5**	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
MAXIMUM GRID #1 CIRCUIT RESISTANCE — value 3	**0**	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.

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