

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	2 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

[SOURCE PDF](#)

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
Maximum Anode Voltage	22000 V	—
Typical Anode Voltage	20000 V	—
Maximum Grid2 Voltage	600 V	—
Typical Grid2 Voltage	300 V	—

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



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
MAGNETIC FOCUS AND DEFLECTION	10	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
D I.R ECT INTERELECTRODE CAPACITANCES (APPROX.) – value 1	1	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
D I.R ECT INTERELECTRODE CAPACITANCES (APPROX.) – value 2	1	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
MINIMUM EXTERNAL CONDUCTIVE COATING TO ANODE	750	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
PHOSPHOR NUMBER	4	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
FACEPLATE LIGHT TRANSMISSION AT CENTER (APPROX.) – value 1	11 percent	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
FACEPLATE LIGHT TRANSMISSION AT CENTER (APPROX.) – value 2	6 percent	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
HEATER VOLTAGE	6.3 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 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 ANODE	20000 V	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
DC GRID – value 1	2 V	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
DC GRID – value 2	300 V	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
DC GRID #i VOLTA GE B – value 1	1 V	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
DC GRID #i VOLTA GE B – value 2	-33 V	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
DC GRID #i VOLTA GE B – value 3	-77 V	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
DC FOCUSING COIL CURRENTC – value 1	1 mA	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
DC FOCUSING COIL CURRENTC – value 2	25 mA	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
XIGN VOLTAGE CIRCUIT WILL BE OVER THE NA%IMUN PE0.NITTED BY THE UNDERWRITERS LABORATORY. THIS – value 1	0 V	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
XIGN VOLTAGE CIRCUIT WILL BE OVER THE NA%IMUN PE0.NITTED BY THE UNDERWRITERS LABORATORY. THIS – value 2	1 V	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
XIGN VOLTAGE CIRCUIT WILL BE OVER THE NA%IMUN PE0.NITTED BY THE UNDERWRITERS LABORATORY. THIS – value 3	1 V	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
CONOITIOX WILL REQUIRE THAT PROVISION BE MADE FOR GR OUMOING THE MI GX VOLTAGE SUPPLY WMEX THE	0 V	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
BFOR VISUAL E%TINLTION OF UN DEFLECTED FOCUSED SPOT.	0	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
CFOR STANDARD FOCUS COIL f109, OR EQUIVALENT, WITH THE COMBINED GR IO f1 BIAS VOLTAGE AMD VIDEO – value 1	9 V	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
CFOR STANDARD FOCUS COIL f109, OR EQUIVALENT, WITH THE COMBINED GR IO f1 BIAS VOLTAGE AMD VIDEO – value 2	0 V	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
CFOR STANDARD FOCUS COIL f109, OR EQUIVALENT, WITH THE COMBINED GR IO fl BIAS VOLTAGE AND VIDEO – value 3	10 V	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
SIGNAL VOLTAGE AOJU STED TO PR OOUCE A MIGNLIGHT BRIGHTNESS OF 20 FOOT CAMBER TS ON A 21 j/8" BY – value 1	0 V	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
SIGNAL VOLTAGE AOJU STED TO PR OOUCE A MIGNLIGHT BRIGHTNESS OF 20 FOOT CAMBER TS ON A 21 j/8" BY – value 2	21 V	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
SIGNAL VOLTAGE AOJU STED TO PR OOUCE A MIGNLIGHT BRIGHTNESS OF 20 FOOT CAMBER TS ON A 21 j/8" BY – value 3	8 V	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
16 1/16" PICTURE SIZE. DISTANCE FROM REFERENCE LINE TO CENTER OF AIR GAP ON FOCUS COIL SNAIL – value 1	11	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
16 1/16" PICTURE SIZE. DISTANCE FROM REFERENCE LINE TO CENTER OF AIR GAP ON FOCUS COIL SNAIL – value 2	0	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
16 1/16" PICTURE SIZE. DISTANCE FROM REFERENCE LINE TO CENTER OF AIR GAP ON FOCUS COIL SNAIL – value 3	0	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 COATING TO ANODE	500	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
MAXIMUM DC	0 V	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
MAXIMUM DC GRID #2 VOLTAGE	2 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.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
MAXIMUM GRID – value 1	1 Mohm	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
MAXIMUM GRID – value 2	1.5 Mohm	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.

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