

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

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

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
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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