

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.



## 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 | 18000 V         | —                |
| Typical Anode Voltage | 16000 V         | —                |
| Maximum Grid2 Voltage | 500 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 b DEFLECTION<br>– value 1             | <b>21718</b>      | Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values. |
| MAGNETIC FOCUS b DEFLECTION<br>– value 2             | <b>167</b>        | Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values. |
| R ECTAMGULAR GLASS<br>CONSTRUCTION                   | <b>10</b>         | Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values. |
| DIRECT INTERELECTRODE<br>CAPACITANCES (APPRO%. )     | <b>1</b>          | Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values. |
| GRID #1 TO ALL G THER<br>ELECTRODES – value 1        | <b>1</b>          | Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values. |
| GRID #1 TO ALL G THER<br>ELECTRODES – value 2        | <b>6</b>          | Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values. |
| PHOSPHOR                                             | <b>4</b>          | Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values. |
| FACEPLATE LIGHT TRANSMISSION<br>– value 1            | <b>11 percent</b> | Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values. |
| FACEPLATE LIGHT TRANSMISSION<br>– value 2            | <b>2 percent</b>  | Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values. |
| HEATER VOLTAGE                                       | <b>6.3 V</b>      | Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values. |
| HEATER CURRENT                                       | <b>600 mA</b>     | Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values. |
| HEATER POSITIVE WITH RESPECT<br>TO CATHODE – value 1 | <b>1 V</b>        | Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values. |
| HEATER POSITIVE WITH RESPECT<br>TO CATHODE – value 2 | <b>0 V</b>        | Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values. |
|                                                      |                   |                                                                                                                            |

| PARAMETER                                                                                                  | PUBLISHED VALUE | CONDITION / NOTE                                                                                                           |
|------------------------------------------------------------------------------------------------------------|-----------------|----------------------------------------------------------------------------------------------------------------------------|
| ABECAU SE THE RATING OF THIS TUBE PERMITS ANOOE VOLTAGES AS HIGH AS 19.BNV~ SNI EI DING Of N-RAY – value 1 | <b>0 V</b>      | Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values. |
| ABECAU SE THE RATING OF THIS TUBE PERMITS ANOOE VOLTAGES AS HIGH AS 19.BNV~ SNI EI DING Of N-RAY – value 2 | <b>19 V</b>     | Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values. |
| ABECAU SE THE RATING OF THIS TUBE PERMITS ANOOE VOLTAGES AS HIGH AS 19.BNV~ SNI EI DING Of N-RAY – value 3 | <b>0 V</b>      | Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values. |
| RADIATION FROM THE TUBE MAY BE MECESSAq T. THIS PRECAUTION SM OULD BE OBSERVED wNEN THE ANODE IS – value 1 | <b>0</b>        | Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values. |
| RADIATION FROM THE TUBE MAY BE MECESSAq T. THIS PRECAUTION SM OULD BE OBSERVED wNEN THE ANODE IS – value 2 | <b>0</b>        | Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values. |
| RADIATION FROM THE TUBE MAY BE MECESSAq T. THIS PRECAUTION SM OULD BE OBSERVED wNEN THE ANODE IS – value 3 | <b>1</b>        | Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values. |
| DC ANODE VOLTAGE                                                                                           | <b>16000 V</b>  | Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values. |
| OC GRID #2 VOLTAGE – value 1                                                                               | <b>0 V</b>      | Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values. |
| OC GRID #2 VOLTAGE – value 2                                                                               | <b>2 V</b>      | Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values. |
| OC GRID #2 VOLTAGE – value 3                                                                               | <b>300 V</b>    | Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values. |
| OC GRID #i VOLTAGE S – value 1                                                                             | <b>1 V</b>      | Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values. |
| OC GRID #i VOLTAGE S – value 2                                                                             | <b>2 V</b>      | Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values. |
|                                                                                                            |                 |                                                                                                                            |

| PARAMETER                                                                                                    | PUBLISHED VALUE | CONDITION / NOTE                                                                                                           |
|--------------------------------------------------------------------------------------------------------------|-----------------|----------------------------------------------------------------------------------------------------------------------------|
| OC GRID #i VOLTAGE S – value 3                                                                               | <b>72 V</b>     | Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values. |
| OC FOCUSING COIL CURRENT[ – value 1                                                                          | <b>0 mA</b>     | Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values. |
| OC FOCUSING COIL CURRENT[ – value 2                                                                          | <b>100 mA</b>   | Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values. |
| OC FOCUSING COIL CURRENT[ – value 3                                                                          | <b>20 mA</b>    | Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values. |
| VISUAL E%71X[71 ON OF UNOEFFECTED FOCUSED SPOT. – value 1                                                    | <b>71</b>       | Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values. |
| VISUAL E%71X[71 ON OF UNOEFFECTED FOCUSED SPOT. – value 2                                                    | <b>710</b>      | Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values. |
| VISUAL E%71X[71 ON OF UNOEFFECTED FOCUSED SPOT. – value 3                                                    | <b>0</b>        | Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values. |
| DFOR – value 1                                                                                               | <b>9 V</b>      | Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values. |
| DFOR – value 2                                                                                               | <b>0 V</b>      | Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values. |
| SIGNAL VOLTAGE ADJU 5TE0 TO PRODU LE A NIGNLI GNT BRIGTME 55 OF 20 F00T LNM BER TS ON A 21 7/e" er – value 1 | <b>1 V</b>      | Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values. |
| SIGNAL VOLTAGE ADJU 5TE0 TO PRODU LE A NIGNLI GNT BRIGTME 55 OF 20 F00T LNM BER TS ON A 21 7/e" er – value 2 | <b>0 V</b>      | Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values. |
| SIGNAL VOLTAGE ADJU 5TE0 TO PRODU LE A NIGNLI GNT BRIGTME 55 OF 20 F00T LNM BER TS ON A 21 7/e" er – value 3 | <b>217 V</b>    | Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values. |
| 16 1/B" PICTI'gE SIZE. – value 1                                                                             | <b>0</b>        | Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values. |

| PARAMETER                        | PUBLISHED VALUE | CONDITION / NOTE                                                                                                           |
|----------------------------------|-----------------|----------------------------------------------------------------------------------------------------------------------------|
| 16 1/B" PICTI'gE SIZE. – value 2 | <b>0</b>        | Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values. |
| 16 1/B" PICTI'gE SIZE. – value 3 | <b>11</b>       | Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values. |

| OTHER                                        |                 |                                                                                                                            |
|----------------------------------------------|-----------------|----------------------------------------------------------------------------------------------------------------------------|
| PARAMETER                                    | PUBLISHED VALUE | CONDITION / NOTE                                                                                                           |
| MAXIMUM DC ANODE VOLTAGE A – value 1         | <b>1 V</b>      | Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values. |
| MAXIMUM DC ANODE VOLTAGE A – value 2         | <b>0 V</b>      | Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values. |
| MAXIMUM DC GRID #2 VOLTAGE – value 1         | <b>2 V</b>      | Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values. |
| MAXIMUM DC GRID #2 VOLTAGE – value 2         | <b>500 V</b>    | Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values. |
| MAXIMUM GRID #1 VOLTAGE                      | <b>1 V</b>      | Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values. |
| MAXIMUM GRID #i CIRCUIT RESISTANCE – value 1 | <b>1 Mohm</b>   | Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values. |
| MAXIMUM GRID #i CIRCUIT RESISTANCE – value 2 | <b>5 Mohm</b>   | Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values. |

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