



ELECTRONIC TUBE REFERENCE

24XP4

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	12D	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

SECTION 1 Cathode Ray

No fixed ratings recorded.

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	20000 V	—
Typical Anode Voltage	18000 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

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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
RECTANGULAR GLA35 – value 1	5	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
RECTANGULAR GLA35 – value 2	10	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
16 3/N' X 21 1/><' RASTER SIZE – value 1	163	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
16 3/N' X 21 1/><' RASTER SIZE – value 2	211	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
16 3/N' X 21 1/><' RASTER SIZE – value 3	6	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
DIRECT INTERELECTRODE CAPACITANCES (APPROX.)	1	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
GRID #i TO ALL OTHER ELECTRODES – value 1	1	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
GRID #i TO ALL OTHER ELECTRODES – value 2	0	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
GRID #i TO ALL OTHER ELECTRODES – value 3	6	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	68 percent	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
PIN i~ – value 1	1	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
PIN i~ – value 2	2	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
HEATER VOLTAGE	6 V	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
HEATER CURRENT	500 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.
A YI SU AL ENTIMCTIOM OF UMOEFL ECTED FOCUSED SPOT.	0	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
BF OR STANDARD FOCUS COII /109, OR EQUIVAI EM T, wI TN THE COMBINED GRID I1 BIAS VOI TAGE AMD VI OEO – value 1	0	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
BF OR STANDARD FOCUS COII /109, OR EQUIVAI EM T, wI TN THE COMBINED GRID I1 BIAS VOI TAGE AMD VI OEO – value 2	11	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
BF OR STANDARD FOCUS COII /109, OR EQUIVAI EM T, wI TN THE COMBINED GRID I1 BIAS VOI TAGE AMD VI OEO – value 3	0	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
SIGNAL VOLTAGE ADJUSTED TO PRODUCE A NIGNLIGHT BRI GNTNE 55 OF 20 FOOT CAMBER TS ON A 21 1/R" BV – value 1	20 V	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
SIGNAL VOLTAGE ADJUSTED TO PRODUCE A NIGNLIGHT BRI GNTNE 55 OF 20 FOOT CAMBER TS ON A 21 1/R" BV – value 2	0 V	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
SIGNAL VOLTAGE ADJUSTED TO PRODUCE A NIGNLIGHT BRI GNTNE 55 OF 20 FOOT CAMBER TS ON A 21 1/R" BV – value 3	211 V	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
16 j/4" PICTURE SIZE. DISTANCE FROM REFERENCE LINE TO CENTER OF AIR GAP ON FOCUS COIL SM ALI – value 1	11	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
16 j/4" PICTURE SIZE. DISTANCE FROM REFERENCE LINE TO CENTER OF AIR GAP ON FOCUS COIL SM ALI – value 2	0	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
16 j/4" PICTURE SIZE. DISTANCE FROM REFERENCE LINE TO CENTER OF AIR GAP ON FOCUS COIL SM ALI – 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 OC GRID Y2 VOLTAGE – value 1	0 V	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
MAXIMUM OC GRID Y2 VOLTAGE – value 2	500 V	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
MAXIMUM DC PEAK HEATER- CATHODE VOLTAGE	6 V	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
MAXIMUM GRID	1.5 Mohm	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.

TUBE TINKER

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