

ELECTRONIC TUBE REFERENCE

27LP4

Specialized - Cathode Ray electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

CATHODERAY

Twenty-seven-inch direct-view monochrome television picture tube with magnetic deflection and high-voltage operation. Manufacturer documentation provides focusing, optical, and electrical characteristics for large-screen receiver display service.

GENERAL CHARACTERISTICS

BASE DESIGNATION	12N	BASE PINS	12
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	22000 V
MAXIMUM SCREEN VOLTAGE	0 V
Direct-view television CRT; high-voltage electrode rating mapped to MaxPlateVoltage as the section high-voltage limit.	

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

CAPACITANCE

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Cathode Capacitance	5 pF	Approximate



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.
DIRECT INTERELECTRODE CAPACITANCES (APPROX.)	1	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
GRID #1 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 #1 TO ALL OTHER ELECTRODES – value 2	0	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
MINIMUM EXTERNAL CONDUCTIVE COATING TO ANODE	0	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
PHOSPHOR NUMBER	4	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 S GRID #3 VOLTAGE – value 1	3 V	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
DC ANODE S GRID #3 VOLTAGE – value 2	20000 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 #1 VOLTAGE S – value 1	1 V	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
DC GRID #1 VOLTAGE S – value 2	33 V	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
DC FOCUSING COIL CURRENT (APPROX.)	14 mA	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
ION TRAP MAGNET FIELD INTENSITY – value 1	10	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
ION TRAP MAGNET FIELD INTENSITY – value 2	1	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
ION TRAP MAGNET FIELD INTENSITY – value 3	45	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
BVI SU AL EXTINCTION OF UNDEFL EC TEO FOCUSED SPOT.	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	400	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
MAXIMUM DC ANODE S – value 1	3 V	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
MAXIMUM DC ANODE S – value 2	22000 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	0 V	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
MAXIMUM GRID #i VOLTAGE	1 V	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
MAXIMUM GRID #i CIRCUIT RESISTANCE – value 1	1 Mohm	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.
MAXIMUM GRID #i CIRCUIT RESISTANCE – value 2	1 Mohm	Published CRT datasheet value; multiple values on one source row represent separate conditions, limits, or nominal values.