ELECTRONIC TUBE REFERENCE

21XP4

Specialized - Cathode Ray electronic tube

CONSOLIDATED TECHNICAL DATA
1 SECTION
CONSTRUCTION
CATHODERAY

> Large P4 monochrome television picture tube for high-voltage direct-view service, using magnetic deflection and manufacturer-specified focusing and beam-control arrangements for type 21XP4.

General characteristics

BASE DESIGNATION	–	**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	20000 V
MAXIMUM SCREEN VOLTAGE	500 V

Published promoted fields populated by printed ratings/characteristics headings.

> Direct-view television picture tube with low-voltage electrostatic focus, magnetic deflection, external ion trap, and grey-filter faceplate.

SOURCE OPERATING CONDITIONS

1961 Tung Sol

SOURCE PDF

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**
HighVoltageAnodeMaximum	**20000 V**	CRT

CAPACITANCE		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
CathodeToOtherElectrodesCapacitance	**5 pF**	Approximate

SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

1966 Tung Sol Electronic Tubes 4 of 4

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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

CONSTRUCTION		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Focusing method	**LowVoltageElectrostatic**	—
Deflecting method	**Magnetic**	—
Phosphor	**P4**	White;MediumPersistence

CHARACTERISTIC		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Deflection angle	**70 deg**	Approximate
Faceplate light transmission at center	**72 %**	Approximate

OTHER

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater voltage	**6.3 V**	—
Heater current	**600 mA**	—
Maximum DC anode voltage	**18000 V**	—
Maximum DC grid #2 voltage	**500 V**	—
Maximum grid #1 negative-bias magnitude	**125 V**	—
Maximum grid #1 positive DC voltage	**0 V**	—
Maximum grid #1 positive peak voltage	**2 V**	—
Typical DC anode voltage	**16000 V**	TelevisionPictureTube
Typical DC grid #2 voltage	**300 V**	TelevisionPictureTube
Typical grid #1 voltage minimum	**-72 V**	VisualExtinctionRange
Typical grid #1 voltage maximum	**-28 V**	VisualExtinctionRange
Maximum grid #1 circuit resistance	**1.5 megohm**	—
Ion trap magnet rated strength	**35 gauss**	Approximate
Focusing electrode voltage minimum	**-64 V**	ElectrostaticFocus
Focusing electrode voltage maximum	**352 V**	ElectrostaticFocus
Maximum focusing electrode voltage minimum	**-500 V**	ElectrostaticFocus
Maximum focusing electrode voltage maximum	**1000 V**	ElectrostaticFocus
Ion trap current standard coil #117	**30 mA**	Approximate

CAPACITANCE

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Cathode-to-all-other-electrodes capacitance	**5 pF**	Approximate
Grid #1-to-all-other-electrodes capacitance	**6 pF**	Approximate

APPLICATION		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Application	**Direct-view television picture tube**	—

Tube Tinker

An independent reference for electronic tubes, vacuum tubes, and their source documents.

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