ELECTRONIC TUBE REFERENCE

27XP4

Specialized - Cathode Ray electronic tube

CONSOLIDATED TECHNICAL DATA
1 SECTION
CONSTRUCTION
CATHODERAY

Twenty-seven-inch short-neck television CRT with electrostatic focusing, 90-degree magnetic deflection, gray-filter faceplate, aluminized P4 screen, and no ion trap. It is designed for shallow direct-view monochrome receivers.

General characteristics

BASE DESIGNATION	12L	**BASE PINS**	—
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	16 V
MAXIMUM SCREEN VOLTAGE	550 V

Electrical section extracted from supplied datasheet.

Twenty-seven-inch short-neck television CRT with electrostatic focus, 90-degree magnetic deflection, gray-filter faceplate, aluminized P4 screen, and no ion trap.

SOURCE OPERATING CONDITIONS

1950 Sylvania

SOURCE PDF

Published test conditions and operating points. Values on this page are preserved as reported by this source.

1950 SYLVANIA

Section 1 · Cathode Ray

OTHER

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum Anode Voltage . 23000 Volts dc	**23000 V**	Maximum Anode Voltage . 23000 Volts dc
Maximum Grid No. 2 Voltage. . 550 Volts dc A Division of	**550 V**	Maximum Grid No. 2 Voltage. . 550 Volts dc A Division of
Maximum Anode Voltage . 23,000 Volts dc	**23 V**	Maximum Anode Voltage . 23,000 Volts dc
Maximum Grid No. 2 Voltage 700 Volts dc	**700 V**	Maximum Grid No. 2 Voltage 700 Volts dc
at close range if this tube is operated at higher than the manufacturer's Maximum Rated Anode Voltag	**16 V**	at close range if this tube is operated at higher than the manufacturer's Maximum Rated Anode Voltage or 16,000 volts,

CHARACTERISTIC

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Minimum Anode Voltage . . 11,000 Volts dc	**11 V**	Minimum Anode Voltage . . 11,000 Volts dc
Grid No. 4 Voltage (Focusing 'Electrode) —550 to + 1100 Volts dc ELECTRONIC TUBES	**1100 V**	Grid No. 4 Voltage (Focusing 'Electrode) —550 to + 1100 Volts dc ELECTRONIC TUBES
Minimum Grid No. 2 Voltage . 200 Volts dc Sylvania Electric Produces Inc.	**200 V**	Minimum Grid No. 2 Voltage . 200 Volts dc Sylvania Electric Produces Inc.
Grid No. 1 Voltage	**1 V**	Grid No. 1 Voltage
Minimum Anode Voltage . . 11,000 Volts dc	**11 V**	Minimum Anode Voltage . . 11,000 Volts dc
Grid No. 4 Voltage (Focusing Electrode) —400 to + 1250 Volts de	**1250 V**	Grid No. 4 Voltage (Focusing Electrode) —400 to + 1250 Volts de

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Minimum Grid No. 2 Voltage. 350 Volts dc	**350 V**	Minimum Grid No. 2 Voltage. 350 Volts dc
Anode Voltage. . 18,000 Volts de	**18 V**	Anode Voltage. . 18,000 Volts de
Grid No. 4 Voltage for Focus 0 to 400 Volts dc	**400 V**	Grid No. 4 Voltage for Focus 0 to 400 Volts dc
Grid No. 2 Voltage . . 400 Volts dc	**400 V**	Grid No. 2 Voltage . . 400 Volts dc
Grid No. 1 Voltage Requxred for Cutoffs. -36to-94 Volts de	**-94 V**	Grid No. 1 Voltage Requxred for Cutoffs. -36to-94 Volts de
Anode Voltage. . 18,000 Volts de	**18 V**	Anode Voltage. . 18,000 Volts de
Grid No. 4 Voltage for Focus. 010400 Volts dc	**10400 V**	Grid No. 4 Voltage for Focus. 010400 Volts dc
Grid No. 2 Voltage . 400 Volts dc	**400 V**	Grid No. 2 Voltage . 400 Volts dc
Cathode Voltage Required for Cutoffs. +36to +78 Volts de	**78 V**	Cathode Voltage Required for Cutoffs. +36to +78 Volts de

SOURCE OPERATING CONDITIONS

SOURCE PDF

1965 Sylvania Electronic Tubes Vol3

Published test conditions and operating points. Values on this page are preserved as reported by this source.

1965 SYLVANIA ELECTRONIC TUBES VOL3

Section 1 · Cathode Ray

CHARACTERISTIC		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Heater current	**600 mA**	Published heater current
Light Transmittance (Approx.) •	**70 %**	Light Transmittance (Approx.) •.... 70Percent No Ion Trap
Heater voltage	**6.3 V**	Heater voltage ..... 6.3 Volts
Heater warm-up Timel	**11 s**	Heater warm-up Timel ..... 11 Seconds

OTHER

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Minimum Anode voltage	**11000 V**	Minimum Anode voltage ..... • . 11,000Volts
Grid No. 4 Voltage (Focusing Electrode) -550 to +	**1100 V**	Grid No. 4 Voltage (Focusing Electrode) -550 to + 1100 Volts dc ELECThoNIC TUBES 1I
Maximum Grid No. 2 Voltage	**550 V**	Maximum Grid No. 2 Voltage .... 550 Volts dc A Divisioo of I
Minimum Grid No. 2 Voltage	**200 V**	Minimum Grid No. 2 Voltage .... 200 Volts dc Sylvania Electric Products Inc. I
Warm-up Period not to Exceed	**15 s**	Warm-up Period not to Exceed 15 Seconds . . 450 Volts PACE 1 0F 3
After Equipment warm-up period	**200 V**	After Equipment warm-up period ..... 200 Volts File Under I
Heater positive with Respect to cathode	**200 V**	Heater positive with Respect to cathode ..... 200 Volts TELEVISION PIC'IURE TUBES i
Maximum Anode voltage	**23000 V**	Maximum Anode voltage ..... 23,000 Volts
Grid No. 4 Voltage (Focusing Electrode)	**1250 V**	Grid No. 4 Voltage (Focusing Electrode) ..... 400 to + 1250 Volts
Maximum Grid No. 2 Voltage	**700 V**	Maximum Grid No. 2 Voltage ..... 700 Volts
Minimum Grid No. 2 Voltage	**350 V**	Minimum Grid No. 2 Voltage ..... 350 Volts
Anode voltage	**18000 V**	Anode voltage ..... 18,000 Volts
Grid No. 4 Voltage for Focus	**400 V**	Grid No. 4 Voltage for Focus ..... 0 to 400 Volts
Grid No. 2 Voltage	**400 V**	Grid No. 2 Voltage ..... 400 Volts
Grid No. 1 Voltage Required for cutoff 5	**-94 V**	Grid No. 1 Voltage Required for cutoff 5 ..... -36 to -94 Volts
Cathode voltage Required for cutoff 5	**78 V**	Cathode voltage Required for cutoff 5 ..... +36 to +78 Volts

CIRCUITVALUE

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid No. 1 Circuit Resistance	**1.5 Mohm**	Grid No. 1 Circuit Resistance . 1.5 Megohms Max.
dt clo]e range Of tbil taebe il oper¢led at bigber iban the man%facturer'I Maximttm Rated Anode Voltage or	**16000 V**	dt clo]e range Of tbil taebe il oper¢led at bigber iban the man%facturer'I Maximttm Rated Anode Voltage or 16,000 Volts,

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