



ELECTRONIC TUBE REFERENCE

27AFP4

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	8HR	BASE PINS	—
NOMINAL HEATER	6.3 V / 300 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Cathode Ray	
MAXIMUM PLATE VOLTAGE	16 V
<i>Electrical section extracted from supplied datasheet.</i>	

Twenty-seven-inch bonded-shield 110-degree television CRT electrically similar to 27ADP4 but with 300 mA heater.



SOURCE OPERATING CONDITIONS

1950 Sylvania

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

1950 SYLVANIA

Section 1 · Cathode Ray

CHARACTERISTIC		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Voltage 6.3 Volts	6.3 V	Heater Voltage 6.3 Volts
Minimum Anode Voltage . 12,000 Volts dc ELECTRONIC TUBES	12 V	Minimum Anode Voltage . 12,000 Volts dc ELECTRONIC TUBES
Grid No. 4 Voltage (Focusing Electrode) -55.0 t.o +1100 Volts dc	1100 V	Grid No. 4 Voltage (Focusing Electrode) —55.0 t.o +1100 Volts dc
Minimum Grid No. 2 Voltage 200 Volts dc	200 V	Minimum Grid No. 2 Voltage 200 Volts dc
Grid No. 1 Voltage PICTURE TUBE	1 V	Grid No. 1 Voltage PICTURE TUBE
Minimum Anode Voltage 00 12,000 Volts dc	12 V	Minimum Anode Voltage 00 12,000 Volts dc
Grid No. 4 Voltage (Focusing Electrode) . -400 to +1250 Volts dc	1250 V	Grid No. 4 Voltage (Focusing Electrode) -400 to +1250 Volts dc
Minimum Grid No. 2 Voltage 0 350 Volts dc	350 V	Minimum Grid No. 2 Voltage 0 350 Volts dc
Anode Voltage L oL L s e e e e e e 18,000 Volts dc	18 V	Anode Voltage L oL L s e e e e e e 18,000 Volts dc
Grid No. 4 Voltagefor Focus . 0 to 400 Volts dc	400 V	Grid No. 4 Voltagefor Focus . 0 to 400 Volts dc
Grid No. 2 Voltage L. 300 Volts dc	300 V	Grid No. 2 Voltage L. 300 Volts dc

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid No. 1 Voltage Required for Cutoft® -37 to -74 Volts	74 V	Grid No. 1 Voltage Required for Cutoft® -37 to -74 Volts
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 Lo	2 V	Grid No. 2 Voltage Lo
Cathode Voltage Required for Cutoff> +37 to +62 Volts dc	62 V	Cathode Voltage Required for Cutoff> +37 to +62 Volts dc
Visual extinction offocused raster. Extinction of stationary focused spot will require that these va	5 V	Visual extinction offocused raster. Extinction of stationary focused spot will require that these values be increased by about 5 volts.

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
External Conductive Coating to Anode? 2500 uuf Max.	2500 pF	External Conductive Coating to Anode? 2500 uuf Max.
Maximum Anode Voltage 22,000 Volts dc SYLVANIA	22 V	Maximum Anode Voltage 22,000 Volts dc SYLVANIA
Maximum Grid No. 2 Voltage 550 Volts dc Sylvania Electric Products Inc.	550 V	Maximum Grid No. 2 Voltage 550 Volts dc Sylvania Electric Products Inc.
Maximum Anode Voltage 22,000 Volts dc	22 V	Maximum Anode Voltage 22,000 Volts dc
Maximum Grid No. 2 Voltage 700 Volts de	700 V	Maximum Grid No. 2 Voltage 700 Volts de
range if this tube is operated at higher than the manufacturer's Maximum Rated Anode Voltage or 16,0	16 V	range if this tube is operated at higher than the manufacturer's Maximum Rated Anode Voltage or 16,000 volts, whichever is less.



SOURCE DATA APPENDIX

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

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Maximum Anode voltage	0 V	Maximum Anode voltage • . . 22'000Volts SYLVANIA
Maximum Grid No. 2 Voltage	550 V	Maximum Grid No. 2 Voltage 550Volts Sylvania Electric Products Inc.
MinimumGridNo.2Voltage	200 V	MinimumGridNo.2Voltage 200Volts
Maximum Anode voltage	22000 V	Maximum Anode voltage 22,000Volts
Minimum Grid No. 2 Voltage	350 V	Minimum Grid No. 2 Voltage 350Volts
Heater positive with Respect to cathode	200 V	Heater positive with Respect to cathode 200 Volts
Anode voltage	18000 V	Anode voltage 18,000Volts
Grid No. 4 Voltage for Focus	400 V	Grid No. 4 Voltage for Focus , 0 to 400 Volts
Grid No. 2 Voltage	300 V	Grid No. 2 Voltage , . . 300 Volts
Cathode voltage Required for cutoff5	62 V	Cathode voltage Required for cutoff5 , +37 to +62 Volts

CIRCUITVALUE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid No. 1 Circuit Resistance	1.5 Mohm	Grid No. 1 Circuit Resistance 1.5 Megohms Max.