ELECTRONIC TUBE REFERENCE

2FP4

Specialized - Cathode Ray electronic tube

CONSOLIDATED TECHNICAL DATA
1 SECTION
CONSTRUCTION
CATHODERAY

Small oscilloscope and monitor cathode-ray tube in the 2FP family. The database record associates it with electrostatic focusing and deflection, but no separate manufacturer artifact is attached for this screen variant.

General characteristics

BASE DESIGNATION	—	**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

No fixed ratings recorded.

CRT section; maximum anode voltage 2750 V and capacitances retained in parameter table.

from JEDEC release #3011, Oct. 31, 1960 RAYONIC® 2FP1 CATHODE RAY TUBE OSCILLOSCOPE AND MONITOR TUBE Focusing Method ... e LIECTOSTATIC Deflecting Method ... ...Electrostatic Phosphor ... SRR o|

SOURCE OPERATING CONDITIONS

1960 Waterman Products

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

1960 WATERMAN PRODUCTS

Section 1 · Cathode Ray

OTHER		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
RAYONIC®	2	RAYONIC® 2FP1 CATHODE RAY TUBE OSCILLOSCOPE AND MONITOR TUBE
Heater VOIAZE ...t smssssmssssssssssssmssssssmssssssmsmsssesmnenenele	3	Heater VOIAZE ...t smssssmssssssssssssmssssssmssssssmsmsssesmnenenele 3. VOIS
Heater Current [1]	600 mA	Heater Current .. 0.6 = 10% Amperes
Heater Current [2]	10 A	Heater Current .. 0.6 = 10% Amperes
Grid #	1	Grid #1 to all other electrodes ..... . S ST
Minimum Useful Screen Dlameter	1347	Minimum Useful Screen Dlameter 1347
Positive voltage on D1 deflects beam approx. toward pin #	3	Positive voltage on D1 deflects beam approx. toward pin #3
Positive voltage on D3 deflects beam approx. toward pin #	5	Positive voltage on D3 deflects beam approx. toward pin #5
Anode Contact is on same side as Pin #	3	Anode Contact is on same side as Pin #3
Anode # [1]	1 V	Anode #1 (Focusmg Electrode) Voltage 1200 Volts
Anode # [2]	1200 V	Anode #1 (Focusmg Electrode) Voltage 1200 Volts
Grid #	1	Grid #1 (G1) Voltage
Peak Voltage between Anode # [1]	2 V	Peak Voltage between Anode #2 andanydeflectmg plate.....550 Volts
Peak Voltage between Anode # [2]	550 V	Peak Voltage between Anode #2 andanydeflectmg plate.....550 Volts
Spot Position, undeflected (note [1]	1 mm	Spot Position, undeflected (note 1) .. sy 10 Max, mm
Spot Position, undeflected (note [2]	10 mm	Spot Position, undeflected (note 1) .. sy 10 Max, mm
Al Voltage [1]	20	Al Voltage 20% to 35% of A2 Voltage
Al Voltage [2]	35	Al Voltage 20% to 35% of A2 Voltage
Gl Voltage	3.5	Gl Voltage 3.5 max % of A2 Voltage
Anode Voltage (A2) [1]	1000 V	Anode Voltage (A2) 1000 1500 2000 Volts
Anode Voltage (A2) [2]	1500 V	Anode Voltage (A2) 1000 1500 2000 Volts
Anode Voltage (A2) [3]	2000 V	Anode Voltage (A2) 1000 1500 2000 Volts
Focusing Elec. Volt. (Al) [1]	200 V	Focusing Elec. Volt. (Al) 200 to 350 300 to 525 400 to 700 Volts
Focusing Elec. Volt. (Al) [2]	350 V	Focusing Elec. Volt. (Al) 200 to 350 300 to 525 400 to 700 Volts
Focusing Elec. Volt. (Al) [3]	300 V	Focusing Elec. Volt. (Al) 200 to 350 300 to 525 400 to 700 Volts

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Focusing Elec. Volt. (Al) [4]	**525 V**	Focusing Elec. Volt. (Al) 200 to 350 300 to 525 400 to 700 Volts
Focusing Elec. Volt. (Al) [5]	**400 V**	Focusing Elec. Volt. (Al) 200 to 350 300 to 525 400 to 700 Volts
Focusing Elec. Volt. (Al) [6]	**700 V**	Focusing Elec. Volt. (Al) 200 to 350 300 to 525 400 to 700 Volts
Gl Voltage (Note [1]	**2 V**	Gl Voltage (Note 2) —20 to —35 —30 to —52 —-40 to —70 Volts
Gl Voltage (Note [2]	**-20 V**	Gl Voltage (Note 2) —20 to —35 —30 to —52 —-40 to —70 Volts
Gl Voltage (Note [3]	**-35 V**	Gl Voltage (Note 2) —20 to —35 —30 to —52 —-40 to —70 Volts
Gl Voltage (Note [4]	**-30 V**	Gl Voltage (Note 2) —20 to —35 —30 to —52 —-40 to —70 Volts
Gl Voltage (Note [5]	**-52 V**	Gl Voltage (Note 2) —20 to —35 —30 to —52 —-40 to —70 Volts
Gl Voltage (Note [6]	**-40 V**	Gl Voltage (Note 2) —20 to —35 —30 to —52 —-40 to —70 Volts
Gl Voltage (Note [7]	**-70 V**	Gl Voltage (Note 2) —20 to —35 —30 to —52 —-40 to —70 Volts
Deflection Factor D1-D2 [1]	**51 V**	Deflection Factor D1-D2 51 to 69 76 to 103 102 to H8 Volts DC/in
Deflection Factor D1-D2 [2]	**69 V**	Deflection Factor D1-D2 51 to 69 76 to 103 102 to H8 Volts DC/in
Deflection Factor D1-D2 [3]	**76 V**	Deflection Factor D1-D2 51 to 69 76 to 103 102 to H8 Volts DC/in
Deflection Factor D1-D2 [4]	**103 V**	Deflection Factor D1-D2 51 to 69 76 to 103 102 to H8 Volts DC/in
Deflection Factor D1-D2 [5]	**102 V**	Deflection Factor D1-D2 51 to 69 76 to 103 102 to H8 Volts DC/in
Deflection Factor D3-D4 [1]	**29 V**	Deflection Factor D3-D4 29 o 39 44 to 59 58to0 78 Volts DC/in
Deflection Factor D3-D4 [2]	**39 V**	Deflection Factor D3-D4 29 o 39 44 to 59 58to0 78 Volts DC/in
Deflection Factor D3-D4 [3]	**44 V**	Deflection Factor D3-D4 29 o 39 44 to 59 58to0 78 Volts DC/in
Deflection Factor D3-D4 [4]	**59 V**	Deflection Factor D3-D4 29 o 39 44 to 59 58to0 78 Volts DC/in
Deflection Factor D3-D4 [5]	**58 V**	Deflection Factor D3-D4 29 o 39 44 to 59 58to0 78 Volts DC/in
Deflection Factor D3-D4 [6]	**78 V**	Deflection Factor D3-D4 29 o 39 44 to 59 58to0 78 Volts DC/in
Grid # [1]	**1**	Grid #1 Circuit resistance ... 1.5 Megohms
Grid # [2]	**1.5**	Grid #1 Circuit resistance ... 1.5 Megohms
Resistance in any Deflecting Electrode Circuit (Note [1]	**3**	Resistance in any Deflecting Electrode Circuit (Note 3) 1.0 Megohms
Resistance in any Deflecting Electrode Circuit (Note [2]	**1**	Resistance in any Deflecting Electrode Circuit (Note 3) 1.0 Megohms
Published value	**1**	1. With tube shielded and deflecting electrodes connected to Anode (A2).

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Published value	**2**	2. For visual extinction of undeflected focused spor.
Published value	**3**	3. The resistance in each deflecting electrode circuit should be approximately equal,
Published value	**4 in**	4 INCHES LONG ALL DIMENSIONS IN INCHES