ELECTRONIC TUBE REFERENCE

2FP11

Specialized - Cathode Ray electronic tube

CONSOLIDATED TECHNICAL DATA
1 SECTION
CONSTRUCTION
CATHODERAY

Small oscilloscope and monitor cathode-ray tube in the 2FP family. The available record associates it with electrostatic focusing and deflection; no separate manufacturer artifact is attached for this phosphor 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 smsssssmsssssssssssssmsssssssmsssssssmsmsssesmnenenele	3	Heater VOIAZE ...t smsssssmsssssssssssssmsssssssmsssssssmsmsssesmnenenele 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