ELECTRONIC TUBE REFERENCE

3YP7

Specialized - Cathode Ray electronic tube

CONSOLIDATED TECHNICAL DATA
1 SECTION
CONSTRUCTION
CATHODERAY

Electrostatically focused and deflected P7 cathode-ray instrument tube for waveform display, with a 6.3 V heater, adjustable focusing, and manufacturer-specified deflection sensitivity.

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.

TENTATIVE RAYONIC fi J- 3Yr2 AN PRODUCTS 3YP7 RAYONIC 3YP1 CATHODE RAY TUBE 3YP11 Focusing Method ceocecscsseassscssscooscessesoseso Electrostatic

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 [1]	**3**	RAYONIC 3YP1 CATHODE RAY TUBE 3YP11
RAYONIC [2]	**3**	RAYONIC 3YP1 CATHODE RAY TUBE 3YP11
RAYONIC [3]	**1**	RAYONIC 3YP1 CATHODE RAY TUBE 3YP11
Heater VOlta.ge PR DB EOEPCICEIIBLIOENE B IGOBOOECOIOPEORCOEDRTDLES	**603**	Heater VOlta.ge PR DB EOEPCICEIIBLIOENE B IGOBOOECOIOPEORCOEDRTDLES 603 VOlt-S
Heater Current .soseusccessssscoccsssncsescoe [1]	**600 mA**	Heater Current .soseusccessssscoccsssncsescoe 0.6 + 10% Amperes
Heater Current .soseusccessssscoccsssncsescoe [2]	**10 A**	Heater Current .soseusccessssscoccsssncsescoe 0.6 + 10% Amperes
Cathode to all Other electrodes e0 [1]	**0 pF**	Cathode to all Other electrodes e00ORGEORCESIIIPRAPROC o8 502 uuf
Cathode to all Other electrodes e0 [2]	**502 pF**	Cathode to all Other electrodes e00ORGEORCESIIIPRAPROC o8 502 uuf
Grid # [1]	**1 pF**	Grid #1 to all other €lectrodes seeseccescsssosescces 209 uuf
Grid # [2]	**209 pF**	Grid #1 to all other €lectrodes seeseccescsssosescces 209 uuf
Positive volts on D1l deflects beam approx. toward pin #	**5 V**	Positive volts on D1l deflects beam approx. toward pin #5
Positive volts on D3 deflects beam approx., toward pin #	**3 V**	Positive volts on D3 deflects beam approx., toward pin #3
Anode Voltage (AZ) [1]	**80680000009 V**	Anode Voltage (AZ) 0080680000009 CREO0ER0C0OOISEPRIG 2750 Volts DC
Anode Voltage (AZ) [2]	**2750 V**	Anode Voltage (AZ) 0080680000009 CREO0ER0C0OOISEPRIG 2750 Volts DC

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode (Az) Inpl.It eE [1]	**0**	Anode (Az) Inpl.It eE 0N S 0800020000 IR0 ICIRRREIOBOIIAERIAD 6 Watts
Anode (Az) Inpl.It eE [2]	**800020000**	Anode (Az) Inpl.It eE 0N S 0800020000 IR0 ICIRRREIOBOIIAERIAD 6 Watts
Anode (Az) Inpl.It eE [3]	**6**	Anode (Az) Inpl.It eE 0N S 0800020000 IR0 ICIRRREIOBOIIAERIAD 6 Watts
Anode # [1]	**1 V**	Anode #1 (Focusing Electrode) Voltage sosceecesesssss 1100 Volts
Anode # [2]	**1100 V**	Anode #1 (Focusing Electrode) Voltage sosceecesesssss 1100 Volts
Grid #	**1**	Grid #1 (G1) Voltage
Peak volts between Anode # [1]	**2 V**	Peak volts between Anode #2 and any deflecting plate 550 Volts
Peak volts between Anode # [2]	**550 V**	Peak volts between Anode #2 and any deflecting plate 550 Volts
Al Voltage [1]	**185**	Al Voltage 18,5% to 34% of A2 Voltage
Al Voltage [2]	**34**	Al Voltage 18,5% to 34% of A2 Voltage
Gl Voltage [1]	**2.8**	Gl Voltage 2.8% to 6.7% of A2 Voltage (NOTE 2)
Gl Voltage [2]	**6.7**	Gl Voltage 2.8% to 6.7% of A2 Voltage (NOTE 2)
Gl Voltage [3]	**2**	Gl Voltage 2.8% to 6.7% of A2 Voltage (NOTE 2)
Anode Voltage (A2) [1]	**500 V**	Anode Voltage (A2) 500 1000 2000 Volts
Anode Voltage (A2) [2]	**1000 V**	Anode Voltage (A2) 500 1000 2000 Volts
Anode Voltage (A2) [3]	**2000 V**	Anode Voltage (A2) 500 1000 2000 Volts
Focusing Electrode Voltage (A1) [1]	**92.51017 V**	Focusing Electrode Voltage (A1) 92.510170 185 to 340 370 to GBO Volts
Focusing Electrode Voltage (A1) [2]	**185 V**	Focusing Electrode Voltage (A1) 92.510170 185 to 340 370 to GBO Volts
Focusing Electrode Voltage (A1) [3]	**340 V**	Focusing Electrode Voltage (A1) 92.510170 185 to 340 370 to GBO Volts
Focusing Electrode Voltage (A1) [4]	**370 V**	Focusing Electrode Voltage (A1) 92.510170 185 to 340 370 to GBO Volts
Grid # [1]	**1 V**	Grid #1 Voltage (Note 2) =140 -33.5 | ~28t0-67 -56t0 —134 | Volts
Grid # [2]	**2 V**	Grid #1 Voltage (Note 2) =140 -33.5 | ~28t0-67 -56t0 —134 | Volts

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Grid # [3]	**140 V**	Grid #1 Voltage (Note 2) =140 -33.5 | ~28t0-67 -56t0 —134 | Volts
Grid # [4]	**-33.5 V**	Grid #1 Voltage (Note 2) =140 -33.5 | ~28t0-67 -56t0 —134 | Volts
Grid # [5]	**28 V**	Grid #1 Voltage (Note 2) =140 -33.5 | ~28t0-67 -56t0 —134 | Volts
Grid # [6]	**-67 V**	Grid #1 Voltage (Note 2) =140 -33.5 | ~28t0-67 -56t0 —134 | Volts
Grid # [7]	**-56 V**	Grid #1 Voltage (Note 2) =140 -33.5 | ~28t0-67 -56t0 —134 | Volts
Grid # [8]	**-134 V**	Grid #1 Voltage (Note 2) =140 -33.5 | ~28t0-67 -56t0 —134 | Volts
Deflection Factor D1-D2 [1]	**341046 V**	Deflection Factor D1-D2 341046 681092 136 to 184 Volts DC/Inch
Deflection Factor D1-D2 [2]	**681092 V**	Deflection Factor D1-D2 341046 681092 136 to 184 Volts DC/Inch
Deflection Factor D1-D2 [3]	**136 V**	Deflection Factor D1-D2 341046 681092 136 to 184 Volts DC/Inch
Deflection Factor D1-D2 [4]	**184 V**	Deflection Factor D1-D2 341046 681092 136 to 184 Volts DC/Inch
Deflection Factor D3-D4 [1]	**22 V**	Deflection Factor D3-D4 22w 30 4410 60 8810120 Volts DC/Inch
Deflection Factor D3-D4 [2]	**30 V**	Deflection Factor D3-D4 22w 30 4410 60 8810120 Volts DC/Inch
Deflection Factor D3-D4 [3]	**4410 V**	Deflection Factor D3-D4 22w 30 4410 60 8810120 Volts DC/Inch
Deflection Factor D3-D4 [4]	**60 V**	Deflection Factor D3-D4 22w 30 4410 60 8810120 Volts DC/Inch
Deflection Factor D3-D4 [5]	**8810120 V**	Deflection Factor D3-D4 22w 30 4410 60 8810120 Volts DC/Inch
Grid # [1]	**1**	Grid # 1 Circuit RESISTANCE ... cceemarmssssmscsrsssmasamrsse 1.5 Megohms
Grid # [2]	**1.5**	Grid # 1 Circuit RESISTANCE ... cceemarmssssmscsrsssmasamrsse 1.5 Megohms
Resistancein any Deflecting Electrode Circuit (INOte [1]	**3 mm**	Resistancein any Deflecting Electrode Circuit (INOte 3) ..ocrrcmnmmmssinsessessses s o 1.0 Megohms

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Resistancein any Deflecting Electrode Circuit (INOte [2]	**1 mm**	Resistancein any Deflecting Electrode Circuit (INOte 3) ..ocrrcmnmmmssinsessessses s o 1.0 Megohms
Published value	**1**	1. With deflecting electrodes connected to Anode (A2).
Published value	**2**	2. For visual extinction of undeflected focused spot.
Published value	**3**	3. The resistance in each deflecting electrode circuit should be approximately equal.
Use of [1]	**3 V**	Use of 3YP7 at anode voltages below 1000 volts is mot recommended,
Use of [2]	**1000 V**	Use of 3YP7 at anode voltages below 1000 volts is mot recommended,