



ELECTRONIC TUBE REFERENCE

9WP4

Specialized - Cathode Ray electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION

CONSTRUCTION

CATHODERAY

Pan-O-Ply television picture tube with aluminized P4 screen, 90-degree magnetic deflection, low grid-No.2 cathode-drive operation, and no requirement for an ion-trap magnet.

GENERAL CHARACTERISTICS

BASE DESIGNATION	7GR	BASE PINS	7
NOMINAL HEATER	12 V / 75 mA	PARALLEL HEATER	– / –
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION 1 Cathode Ray

No fixed ratings recorded.

Cathode-ray section. CRT anode/ultor, grid, focus/deflection, heater-cathode, capacitance, and operating values are stored as section parameters.

Pan-O-Ply aluminized P4 picture tube with 90-degree magnetic deflection, low grid-No.2 voltage, cathode-drive operation, and no ion-trap magnet requirement.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

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

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Section 1 · Cathode Ray

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Cathode to All Other Electrodes Capacitance	5 pF	—
Grid #1 to All Other Electrodes Capacitance	6 pF	—
External Conductive Coating to Anode Capacitance	300–750 pF	—

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Heater Warm-Up Time	11 s	Average
Deflecting Method	Magnetic	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode Voltage	8000–12000 V	Design maximum
Grid #4 Positive Voltage	—1100 V	—
Grid #4 Negative Voltage	—550 V	—
Grid #2 Voltage	75–250 V	—
Grid #1 Negative Peak Voltage	—220 V	—
Grid #1 Negative Bias Voltage	—155 V	—
Grid #1 Positive Bias Voltage	—0 V	—
Grid #1 Positive Peak Voltage	—2 V	—
Heater Voltage	10.8–13.2 V	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Peak Heater-Cathode Voltage - Heater Negative During Warm-Up	—450 V	Warm-up period <15 s
Peak Heater-Cathode Voltage - Heater Negative After Warm-Up	—200 V	—
Peak Heater-Cathode Voltage - Heater Positive Combined AC and DC	—200 V	—
Peak Heater-Cathode Voltage - Heater Positive DC Component	—100 V	—
Anode Voltage	9000 V	CathodeDrive
Grid #4 Voltage	0–300 V	CathodeDrive
Grid #2 Voltage	100 V	CathodeDrive
Cathode Voltage for Visual Extinction	32–50 V	CathodeDrive
Centering Magnet Field Strength	0–8 gauss	CathodeDrive
Grid #1 Circuit Resistance	—1.5 MΩ	Maximum circuit value