



ELECTRONIC TUBE REFERENCE

23GWP4

Specialized - Cathode Ray electronic tube

CONSOLIDATED TECHNICAL DATA

1 SECTION
CONSTRUCTION
CATHODERAY

Large aluminized P4 monochrome television picture tube for high-voltage direct-view service, using electrostatic focusing and magnetic deflection with manufacturer-specified operating characteristics for type 23GWP4.

GENERAL CHARACTERISTICS

BASE DESIGNATION	—	BASE PINS	—
NOMINAL HEATER	6.3 V / 450 mA	PARALLEL HEATER	— / —
HEATING	Indirect	SERIES OPERATION	Not specified
CATHODE ARRANGEMENT	Separate cathodes	SECTION CONSTRUCTION	Similar

SECTION RATINGS

SECTION1 Cathode Ray	
MAXIMUM PLATE VOLTAGE	22000 V
Published source ratings and characteristics promoted where applicable; additional electrical and operating data retained as parameters.	

23-inch 110-degree monochrome television CRT with electrostatic focus, magnetic deflection, and aluminized P4 screen.

SOURCE OPERATING CONDITIONS

[SOURCE PDF](#)

1964 RMA EIA

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

1964 RMA EIA

Section 1 · Cathode Ray

APPLICATION		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Application	Cathode-ray display / television / instrumentation	—

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Focusing method	Electrostatic	—
Deflection method	Magnetic	—
Horizontal deflection angle	99 deg	—
Vertical deflection angle	82 deg	—
Diagonal deflection angle	110 deg	—
Heater warm-up time	11 s	—

CAPACITANCE		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Cathode-to-all capacitance	4 pF	—
Grid1-to-all capacitance	5 pF	—
External coating capacitance minimum	2000 pF	—
External coating capacitance maximum	2500 pF	—

OTHER		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Anode voltage minimum	11000 V	—
Focus-electrode positive voltage maximum	1250 V	—

PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Focus-electrode negative voltage minimum	-400 V	—
Grid2 voltage minimum	40 V	—
Grid2 voltage maximum	80 V	—
Grid1 negative voltage maximum	-154 V	—
Grid1 negative peak maximum	-220 V	—
Grid1 positive peak maximum	2 V	—
Heater voltage minimum	5.7 V	—
Heater voltage maximum	6.9 V	—
Heater-cathode voltage during warm-up maximum	450 V	—
Heater-cathode voltage after warm-up maximum	300 V	—
Typical anode voltage	18000 V	—
Typical focus voltage	150 V	—
Typical grid2 voltage	50 V	—
Cathode cutoff voltage range	+33 to +45 V	—
Grid1 circuit resistance maximum	1.5 Mohm	—