ELECTRONIC TUBE REFERENCE

4050BD

Specialized - Cathode Ray electronic tube

CONSOLIDATED TECHNICAL DATA
1 SECTION
CONSTRUCTION
CATHODERAY

Early electrostatic cathode-ray oscillograph tube with a long-afterglow screen, intended for measurement display; manufacturer data specifies deflection sensitivity and operation over roughly 300–2000 V anode supply.

General characteristics

BASE DESIGNATION	–	**BASE PINS**	9
NOMINAL HEATER	0.75 V / 900 mA	**PARALLEL HEATER**	– / –
HEATING	Direct	**SERIES OPERATION**	Not specified
CATHODE ARRANGEMENT	Separate cathodes	**SECTION CONSTRUCTION**	Similar

Section ratings

SECTION1 Cathode Ray	
MAXIMUM PLATE VOLTAGE	1500 V
Gas-focused CRT; delay screen.	

Gas-filled cathode-ray tube with electrostatic deflection, a directly heated filament, 300-2000 V anode range, and a long afterglow of 10-15 seconds in the dark.

SOURCE OPERATING CONDITIONS

1937 Standard Valves

SOURCE PDF

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

1937 STANDARD VALVES

Section 1 · Cathode Ray

CHARACTERISTICS		
PARAMETER	PUBLISHED VALUE	CONDITION / NOTE
Filament current range	**700 mA–1.1 A**	—
Anode voltage range	**300–2000 V**	—
Normal anode voltage	**350 V**	—
Deflecting-plate pair capacitance	**5.5 pF**	Including socket
Single deflecting plate to anode capacitance	**7.8 pF**	Including socket
Deflecting-plate pair conductance	**1 umho**	Approximate
Shield voltage range	**0–50 V**	From potentiometer
Sensitivity	**440 mm/V**	Approximate
Screen characteristic	**long afterglow of 10-15 seconds in the dark**	—

SOURCE DATA APPENDIX

SOURCE OPERATING CONDITIONS

1946 Standard Telephone and Cables

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

1946 STANDARD TELEPHONE AND CABLES

Section 1 · Cathode Ray

CHARACTERISTICS		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Interelectrode capacitances published	**1**	See source table for individual capacitances

SOURCE OPERATING CONDITIONS

SOURCE PDF

1947 Standard Valves

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

1947 STANDARD VALVES

Section 1 · Cathode Ray

OTHER		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Filament current	**700 mA–1.1 A**	—
Anode voltage	**350–1500 V**	—
Normal anode voltage	**500 V**	—
Shield voltage	**0–50 V**	—

CHARACTERISTICS		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Sensitivity	**580 mm/V**	V = anode voltage

DIMENSIONS		
PARAMETER	**PUBLISHED VALUE**	**CONDITION / NOTE**
Effective screen diameter	**6.5 in**	—

Tube Tinker

An independent reference for electronic tubes, vacuum tubes, and their source documents.

Catalog Tube types Full books Blog Feedback & corrections

© 2026 Tube Tinker