

TEKTRONIX

370B

The Tektronix 370B is a high-performance, programmable semiconductor curve tracer that serves as the industry standard for characterization and testing of a wide variety of semiconductor devices, including diodes, transistors, thyristors, and field-effect transistors. Featuring digital storage, parameter measurement capabilities, and a built-in test fixture with a safety interlock, it enables safe and precise parametric measurements up to 2000 V or 10 A peak.

SPECIFICATIONS

General

Interfaces	GPIB (IEEE-488.2), 3.5-inch Floppy Disk Drive (1.44 MB / 720 KB)
Display	7-inch Electrostatic CRT with digital storage and readout
Warm-up Time	20 minutes

Physical

Operating Temperature	10 to 40 °C °C
Dimensions (W×H×D)	397×192×554 mm mm
Weight	32.0 kg

Collector/Drain Sweep Supply

Max Peak Voltage	2000 V
Max Peak Current	10 A
Peak Power Ranges	0.1 W, 2 W, 30 W, 220 W
Sweep Voltage Ranges	16 V, 80 V, 400 V, 2000 V
Sweep Polarities	Positive, Negative, AC

Step Generator (Base/Gate Stimulus)

Step Generator Output Modes	Current, Voltage
Current Step Range per Step	50 nA to 200 mA in a 1-2-5 sequence
Voltage Step Range per Step	50 mV to 2 V in a 1-2-5 sequence
Number of Steps Range	0 to 10 steps
Step Polarity	Positive, Negative, Pulsed (Positive or Negative)
Step Offset Range	Variable up to ±10 times the step amplitude

Horizontal Deflection System

Collector Voltage Sensitivity Range	50 mV/div to 200 V/div (magnified to 5 mV/div)
Base/Gate Voltage Sensitivity Range	50 mV/div to 2 V/div (magnified to 5 mV/div)
Horizontal Accuracy	Within ±1.5% of readout (normal display)

Vertical Deflection System

Collector Current Sensitivity Range	1 nA/div to 2 A/div (magnified to 100 pA/div)
Vertical Accuracy	Within $\pm 1.5\%$ of readout (normal display)

Display & Measurement Capabilities

Waveform Storage Capacity	Up to 80 non-volatile internal locations plus Floppy Disk storage
Setup Storage Capacity	Up to 80 non-volatile internal locations plus Floppy Disk storage
Display Modes	Store, View, Reference, Compare

Input/Output & Remote Interfaces

External Monitor Output	DB-9 female connector, analog RGB
-------------------------	-----------------------------------

Test Fixture & Protection

Standard Test Fixture	Integrated with protective safety cover and interlock
Kelvin Sensing Support	Yes, supported via compatible adapters

Environmental Specifications

Storage Temperature Range	-40 to +65 °C
---------------------------	---------------

Auxiliary Voltage Supply

Auxiliary Voltage Supply Range	-40 V to +40 V
Auxiliary Voltage Supply Max Current	100 mA

Storage

Floppy Disk Drive	3.5-inch MS-DOS compatible (1.44 MB or 720 KB)
Floppy Disk Format Compatibility	3.5-inch MS-DOS (720 KB or 1.44 MB)

Measurement & Display

Cursor Modes	Dot, Window, Function (f(x)), Line (Tangent)
--------------	--

Display Details

CRT Display Type	7-inch diagonal, electrostatic deflection with internal graticule
------------------	---

Step Generator

Step Generator Max Current Output	2 A
Step Generator Max Voltage Output	20 V

Power

AC Line Frequency Range	48 Hz to 63 Hz
AC Line Voltage Range	90 V to 250 V AC

Safety & Protection

Safety Interlock	Fixture enclosure interlock to disable high voltage when open
------------------	---

Collector Supply

Sweep Frequency	100 Hz (at 50 Hz line frequency) / 120 Hz (at 60 Hz line frequency)
-----------------	---

General & Mechanical

Cooling Method	Forced-air cooling
----------------	--------------------

TECHNOLOGY

Analog-Digital Hybrid Curve Tracer

APPLICATIONS

Semiconductor Device Parametric Characterization and Testing

Generated by SpecAtlasHub (specatlashub.com). Specifications are compiled from available sources and are subject to change — verify critical values against the manufacturer before purchase.