TEKTRONIX

371A

The Tektronix 371A is an industry-standard high-power curve tracer designed for the characterization and testing of high-power semiconductor devices, such as thyristors, SCRs, IGBTs, and power MOSFETs. It delivers high-voltage measurements up to 3000 V and high-current measurements up to 400 A peak pulsed.

SPECIFICATIONS

General

Interfaces	GPIB (IEEE-488.1)
Display	7-inch CRT with internal graticule
Cooling Method	Forced-air cooling

Physical

Power Supply	90 to 250 VAC, 48 to 63 Hz, 400 W maximum
Operating Temperature	10 to 40 °C °C
Dimensions (W×H×D)	326 mm × 403 mm × 641 mm mm
Weight	36.3 kg kg

Collector/Drain Sweep Supply

Max Peak Voltage (High Voltage Mode)	3000 V
Max Peak Voltage (High Current Mode)	30 V
Max Peak Current (High Voltage Mode)	4 A
Max Peak Current (High Current Mode)	400 A
Max Peak Power (High Voltage Mode)	300 W
Max Peak Power (High Current Mode)	3000 W
Pulse Sweep Width	250 µs
Sweep Polarities	NPN (+), PNP (-)

Step Generator (Base/Gate Stimulus)

Step Generator Output Modes	Current Step, Voltage Step
Current Step Range	1 µA to 2 A per step in 1-2-5 sequence
Voltage Step Range	50 mV to 5 V per step in 1-2-5 sequence
Max Number of Steps	10
Step Offset Range	-10 to +10 steps

Horizontal Deflection System

Horizontal Collector Voltage Sensitivity	50 mV/div to 500 V/div
Horizontal Accuracy	±1.5% of reading + 0.05 division
A/D Converter Resolution	10-bit

Vertical Deflection System

Vertical Collector Current Range (High Voltage Mode)	10 µA/div to 500 mA/div
Vertical Collector Current Range (High Current Mode)	1 A/div to 40 A/div
Vertical Accuracy	±1.5% of reading + 0.05 division

Test Fixture & Protection

Standard Test Fixture Model	A1005
Safety Interlock	Mechanical and electrical interlock switch on the test fixture cover

Display & Measurement Capabilities

Waveform Storage Capacity	16 non-volatile memories
Setup Storage Capacity	16 non-volatile memories
Floppy Disk Drive	3.5-inch 1.44 MB MS-DOS compatible

Environmental Specifications

Storage Temperature Range	-40 to +75 °C

Display

CRT Graticule	10 × 10 divisions (0.8 cm/div)
CRT Phosphor Type	P31 (GH)
CRT Size	7 in
Cursor Types	Dot, Window, Tangent
Display Modes	Store, Non-Store, Reference, Compare

Collector Supply

Collector Supply Pulse Width	250 µs

Step Generator

Step Generator Max Output Voltage (Current Mode)	12 V
Step Generator Max Output Current (Voltage Mode)	2 A

Measurement & Display Modes

Cursor Modes	Dot, Window, Function
Display Acquisition Modes	Normal, Envelope, Average

Environmental

Maximum Operating Altitude	4500 m (15,000 ft)
Maximum Non-Operating Altitude	15,000 m (50,000 ft)

Interfaces

GPIB Standard Compliance	IEEE 488.1
GPIB Function Subsets	SH1, AH1, T6, L4, SR1, RL1, PP0, DC1, DT1, C0, E1

Power Supply

AC Power Source Voltage Settings	100 V / 120 V / 220 V / 240 V AC (±10%)
AC Power Source Frequency	48 Hz to 63 Hz
Max Power Consumption	400 W

Measurement

DUT Channel Selection	A, Standby, B

Performance

Horizontal Magnifier	x10
Vertical Magnifier	x10

TECHNOLOGY

Analog-Digital hybrid curve tracing

APPLICATIONS

High-power semiconductor device characterization

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