



An ISO 9001:2015 Co.

To Study H – Parameters hie & hfe of Transistor

Model : SD-144

SINCOM SD-144 To study H-Parameters hie & hfe of Transistor is simply designed trainer for the purpose to study the hie & hfe parameters of Transistor in common emitter mode in a simple experimental way with facility to connect the external voltmeter, ammeter and AF signal in the circuit.

Features

- ❖ BJT NPN BC548 wired in base biasing single stage CE amplifier to study H- parameters hie & hfe.
- ❖ One Silicon NPN BJT of TO-92 package on board
- ❖ Variable Resistive Collector Load
- ❖ In-Built Fixed regulated DC Power Supply
- ❖ User friendly Design
- ❖ Very Easy for Operation
- ❖ Multi color Circuit Diagram is printed on the front panel of the white board
- ❖ Enclosed in an attractive, light weight, High Quality, Poly Coated Imported Pine Wooden cabinet
- ❖ Facility to connect external Voltmeters, Milliammeter, Function Generator and Oscilloscope
- ❖ Interconnections by 2mm high quality banana sockets and pins
- ❖ Maximum Test points to explore all the corners of experiment
- ❖ 1 Year Warranty

Technical Specifications

▪ AC Mains Power Supply	: 230V $\pm$ 10%, 50Hz
▪ DC Power Supply	: IC Regulated Fixed +12V/500mA
▪ Biasing Method	: Fixed Base Bias without Emitter Feedback
▪ Transistor Type and Package	: BJT-Silicon-NPN, TO-92 Package
▪ Transistor Used	: One BC 548
▪ Transistor β	: @170-180
▪ Transistor Configuration	: CE mode
▪ H-Parameters	: hie and hfe
▪ BJT Junction Voltage	: 0.7V
▪ Max. Collector Emitter Voltage	: 12 VDC
▪ Resistor Bank	: At Base and Collector
▪ Collector Load	: Fixed and Variable Resistive Load
▪ Input Output Coupling Capacitors	: Two Nos.
▪ Input Signal Type	: Sine wave
▪ Max. Input Frequency Range	: 60Hz-100KHz approx.
▪ Output Frequency Response	: 60Hz-50KHz approx.
▪ Weight	: 2.0 kg (approx)
▪ Dimensions (mm)	: L 220 x W 270 x H 110
▪ Interconnections	: 2mm Banana sockets
▪ Operating Temperature	: 0-50°C, 80% RH



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Learning Scope

- To Study h-parameters h_{ie} & h_{fe} of CE Transistor in Common Emitter mode.
- To Observe the change in this parameter for the change in DC collector current I_C .

Other Instruments Required : Digital Multimeter, Oscilloscope, Function Generator 1MHz.

Accessories Included : Set of Patch Cord and Details Instruction Manual