

To Study H-Parameters of Transistor

Model : SD-145

SINCOM SD-145 To study all H-Parameters of Transistor is simply designed trainer for the purpose to study the hoe, hre and 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 Transistor BC548/SL100 fixed base bias CE mode with RC Network and variable Resistors load at collector used to study hoe and hre H Parameters.
- ❖ BJT NPN Transistor BC548/SL100 in fixed base bias CE mode with coupling capacitors and variable Resistors load at collector used to study hie and hfe H Parameters.
- ❖ Two 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	: Two BC 548/SL100
▪ Transistor β	: @170-180
▪ Transistor Configuration	: CE mode
▪ H-Parameters	: Two modules of hie ,hfe and hoe,hre parameters
▪ 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)



An ISO 9001:2015 Co.

- Dimensions (mm) : L 270 x W 390 x H 130
- Interconnections : 2mm Banana sockets
- Operating Temperature : 0-50°C, 80% RH

Learning Scope

- To Study h-parameters h_{oe} & h_{re} of CE Transistor in Common Emitter mode.
- 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

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

Accessories Included : Set of Patch Cord and Details Instruction Manual