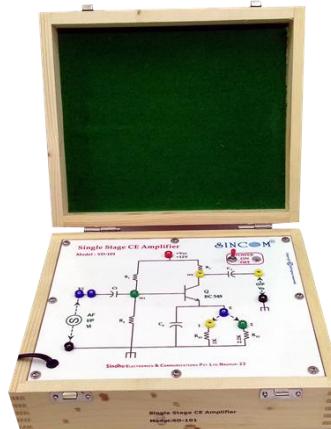


Single Stage CE Amplifier

Model : SD-101



SINCOM SD-101 Single Stage CE Amplifier is simply designed trainer for the purpose to study the concept, operation, Frequency response and determine the Bandwidth, Voltage gain and other parameters of a BJT as Single Stage CE Amplifier with a gain control in a simple experimental way.

Features

- ❖ User friendly Design
- ❖ BJT NPN BC548 with Self base biasing operates as a Single stage CE amplifier circuit
- ❖ Silicon NPN BJT of TO-92 package on board
- ❖ Resistor Bank at Emitter to control the gain
- ❖ Resistive Collector Load
- ❖ In-Built Fixed regulated DC Power Supply
- ❖ 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 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
▪ Amplifiers Type	: Single Stage CE Amplifier
▪ Transistor Type and Package	: Bi-Polar Silicon-NPN BC548, TO-92 Package
▪ Transistor Configuration	: CE mode
▪ Biasing Method	: Self Bias
▪ BJT Junction Voltage	: 0.7V
▪ Max. Collector Emitter Voltage	: 12 VDC



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▪ Emitter Base Voltage V_{BE}	: 5V
▪ Base Resistors	: Two No.
▪ Input Output Coupling Capacitors	: Two No. Electrolytic type
▪ Gain Control Emitter Resistor Bank	: Two- MFR 1KΩ and 2.2KΩ, ±5%
▪ Collector Load	: 10KΩ Fixed Resistive Load
▪ Input Signal Type	: Sine wave
▪ Max. Input Frequency Range	: 60Hz-500KHz approx.
▪ Output Frequency Response	: 100Hz-30KHz 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

Learning Scope

- To study the Single Stage CE Amplifier .
- To Observe & Note the change in O/P w.r.t. change in I/P Frequency.
- To Plot the frequency response & To Determine Bandwidth of circuit for the different Values of emitter resistor RE.

Other Instruments Required : Oscilloscope, Function Generator 1MHz.

Accessories Included : Set of Patch Cord and Details Instruction Manual