

Single Stage CB Amplifier

Model : SD-102

SINCOM SD-102 Single Stage CB 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 CB Amplifier in a simple experimental way.

Features

- ❖ User friendly Design
- ❖ BJT NPN BC548 with Self base biasing operates as a Single stage CB 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, -12V/500mA
■ Amplifiers Type	: Single Stage CB Amplifier
■ Transistor Type and Package	: Bi-Polar Silicon-NPN BC548 , TO-92 Package
■ Transistor Configuration	: CB mode
■ Biasing Method	: Fixed Bias
■ BJT Junction Voltage	: 0.7V
■ Max. Collector Emitter Voltage	: 12 VDC
■ Emitter Base Voltage V_{BE}	: 5V
■ Emitter Resistor	: One No.
■ Input Output Coupling Capacitors	: Two No. Electrolytic type
■ Collector Load	: 10K Ω 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 $^{\circ}$ C, 80% RH



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Learning Scope

- To study the Single Stage CB 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