Negative Feedback in CE Amplifier

Model : SD-127

SINCOM SD-127 Negative Feedback in 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 Negative Feedback in CE Amplifier with a feedback control in a simple experimental way.

Features

- BJT NPN BC548 with Self base biasing wired as to study the effect of a Negative Feedback in CE amplifier circuit
- Output with and without Negative Feedback effect
- Silicon NPN BJT of TO-92 package on board
- Resistor Bank at Emitter to control the feedback gain
- Resistive Collector Load
- Input and Output Coupling Capacitors
- 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 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 ±10%, 50Hz
- DC Power Supply : IC Regulated Fixed +12V/500mA
- Amplifier Type : Negative Feedback CE Amplifier

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- Transistor Type and Package : Bi-Polar Silicon-NPN, TO-92 Package
- Transistor Used : BC548
- Transistor Configuration : CE mode
- Biasing Method : Self Bias
- BJT Junction Voltage : 0.7V
- Max. Collector Emitter Voltage : 12 VDC
- 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% with and without Capacitor
- Collector Load : 10KΩ Fixed Resistive Load
- Output : With and Without Negative Feedback Output
- Input Signal Type : Sine wave
- Max. Input Frequency Range : 60Hz-500KHz approx.
- Output Frequency Response : 60Hz-100KHz approx.
- Weight : 2.0 kg (approx)
- Dimensions (mm) : L 220 x W 270 x H 110
- Interconnections : 2mm Banana sockets
- Operating Temperature : 0-50^{0}C, 80% RH

Learning Scope

- To study Negative Feedback Single Stage CE Amplifier .
- To observe and Note the change in O/P voltage w.r.t. change in I/P frequency for the selected emitter Resistor RE. To Plot the Frequency response curve.
- To Observe & Note the effect of feedback components (emitter resistor RE) on the gain, Bandwidth of an amplifier.

Other Instruments Required : Oscilloscope, Function Generator 1MHz.

Accessories Included : Set of Patch Cord and Details Instruction Manual

Subject to Change