



An ISO 9001:2015 Co.

Cascode Amplifier using BJT

Model : SD-147

SINCOM SD-147 Cascode Amplifier using BJT is very useful simply designed trainer to study the concept, operation, Frequency response and determine the Bandwidth, over all Voltage gain and other parameters of a Cascode Amplifier using BJT in a simple experimental way.

Features

- ❖ Two BJT with Self base biasing operates as a Cascode amplifier circuit
- ❖ Silicon NPN BJTs of TO-92 package on board
- ❖ Wide Bandwidth AF Amplifier
- ❖ 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 \pm 10%, 50Hz
▪ DC Power Supply	: IC Regulated Fixed +12V/500mA
▪ Amplifier Type	: Cascode Amplifier
▪ Transistor Type and Package	: Bi-Polar Silicon-NPN, TO-92 Package
▪ Transistor Used	: Two BC548
▪ Transistor Configuration	: BJT Cascode
▪ Biasing Method	: Self Bias
▪ Max. Collector Emitter Voltage	: 12VDC
▪ Base Resistors	: Two No.
▪ Emitter Resistors	: One No. with bypass capacitor
▪ 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-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 $^{\circ}$ C, 80% RH



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Learning Scope

- To study the Cascode Amplifier using BJT .
- To Observe & Note the change in O/P w.r.t. change in I/P Frequency.
- To Plot the frequency response & To Determine Bandwidth amplifier

Other Instruments Required : Oscilloscope, Function Generator 1MHz.

Accessories Included : Set of Patch Cord and Details Instruction Manual