

Transformer Coupled Class-A Amplifier

Model : SD-109

SINCOM SD-109 Transformer Coupled Class-A 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 Transformer coupled Class-A Amplifier in a simple experimental way.

Features

- ❖ User friendly Design
- ❖ BJT NPN BC548 with Self base biasing and collector Transformer operates as a Transformer coupled Class-A amplifier circuit
- ❖ Silicon NPN BJT of TO-92 package on board
- ❖ Wide Bandwidth AF Amplifier
- ❖ Transformer Coupled Output
- ❖ Resistive Output 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

▪ DC Power Supply	: IC Regulated Fixed +6V/500mA
▪ Amplifier Type	: Transformer Coupled Class-A 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
▪ Emitter Base Voltage V_{BE}	: 5V
▪ Base Resistors	: Two No.
▪ Emitter Resistors	: One No. with bypass Capacitor
▪ Input Output Coupling Capacitors	: Two No. Electrolytic type
▪ Output Coupling Transformer	: 6V AF Driver Transformer
▪ Load Resistor	: 10KΩ Fixed Resistive Load
▪ Input Signal Type	: Sine wave
▪ Max. Input Frequency Range	: 60Hz-500KHz approx.
▪ Output Frequency Response	: 100Hz-20KHz approx.
▪ AC Mains Power Supply	: 230V ±10%, 50Hz



An ISO 9001:2015 Co.

▪ 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 Transformer coupled Class-A Power Amplifier circuit.
- To Observe & Note the change in O/P w.r.t. change in I/P Frequency.
- To Plot the frequency response & To Determine Bandwidth, Voltage Gain, Efficiency.

Other Instruments Required : Oscilloscope, Function Generator 1MHz.

Accessories Included : Set of Patch Cord and Details Instruction Manual