Class-AB Push Pull Amplifier

Model : SD-111

SINCOM SD-111 Class-AB Push Pull Amplifier is simply designed trainer useful to study the concept, operation, Frequency response and determine the Bandwidth, Voltage gain and other parameters of a Class-AB Push Pull Amplifier in a simple experimental way.

Features

- ❖ User friendly Design
- ❖ Two NPN BJT transistors connected in a Push-Pull mode with voltage divider base biasing, emitter feedback resistor, Input & Output Driver Transformers operates as a Class-AB Push Pull amplifier circuit.
- ❖ Silicon NPN BJT of TO-92 package on board
- ❖ Wide Bandwidth AF Amplifier
- ❖ Resistive Load and Loud Speaker as Inductive Load
- ❖ Audio Tone Output
- ❖ Input and Output Driver Transformers
- ❖ 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 ±10%, 50Hz
- ▪ DC Power Supply : IC Regulated Fixed +12V/500mA
- ▪ Amplifier Type : Class-AB Push Pull Amplifier
- ▪ Transistor Type and Package : Bi-Polar Silicon-NPN, TO-92 Package
- ▪ Transistor Used : Two BC548 in Push-Pull configuration
- ▪ Transistor Configuration : CE mode
- ▪ Biasing Method : Voltage Divider Bias
- ▪ BJT Junction Voltage : 0.7V
- ▪ Max. Collector Emitter Voltage : 12 VDC
- ▪ Emitter Base Voltage V_{BE} : 5V
- ▪ Input Output Coupling Transformer : 6V AF Driver Transformer secondary centre tap
- ▪ Input Output Coupling Capacitors : Two No. Electrolytic type
- ▪ Base Resistors : Two No.
- ▪ Emitter Resistors : One No.
- ▪ Resistive Output Load : 10KΩ Fixed Resistive Load

- Inductive Output Load   : 4Ω Loud Speaker Inductive Load
- Input Signal Type   : Sine wave
- Max. Input Frequency Range   : 60Hz-500KHz approx.
- Output Frequency Response   : 100Hz-20KHz 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 Class-AB Push-Pull Power Amplifier circuit.
- To Observe & Note change in O/P w.r.t. change in I/P Frequency.
- To Plot frequency response & To Determine Bandwidth, Voltage Gain, Efficiency of class-AB Push-Pull Power amplifier.

Other Instruments Required : Oscilloscope, Function Generator 1MHz.

Accessories Included : Set of Patch Cord and Details Instruction Manual

Subject to Change

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