Darlington Transistor Amplifier

Model : SD-124

SINCOM SD-124 Darlington Transistor Amplifier is very useful simply designed trainer to study the concept, operation, Frequency response and determine the Bandwidth, Voltage gain and other parameters of a BJT Darlington Transistor Amplifier in a simple experimental way.

Features

- Two NPN Transistor BC548 with voltage divider biasing connected in Darlington mode as an unity gain amplifier
- First stage Output is connected to the second stage Input through Darlington mode
- Silicon NPN BJTs of TO-92 package on board
- Wide Bandwidth AF Amplifier
- Resistive Collector Load
- Facility to study each stage separately
- 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	: Darlington CE Amplifier
Transistor Type and Package	: Bi-Polar Silicon-NPN, TO-92 Package
Transistor Used	: Two BC548
Transistor Configuration	: CE mode
Amplifier Stages	: Two
Amplifiers Inter coupling type	: Darlington
Biasing Method	: Voltage Divider
BJT Junction Voltage	: 0.7V
Max. Collector Emitter Voltage	: 12VDC
Emitter Base Voltage V_{BE}	: 5V
Base Resistors	: Two No. for first stage
Input Output Coupling Capacitors	: Two No. Electrolytic type
Emitter Load	: 10KΩ Fixed Resistive output 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 Darlington Transistor Amplifier.
- To Observe & Note change in output w.r.t. change in I/P Frequency.
- To Plot the frequency response & To Calculate Voltage gain & Current gain

Other Instruments Required : Oscilloscope, Function Generator 1MHz.

Accessories Included : Set of Patch Cord and Details Instruction Manual

Subject to Change