JFET Biasing Methods

Model : SC-107

SINCOM SC-107 JFET Biasing Trainer is a **All-In-One** simply designed trainer for the purpose to study N-Channel JFET Gate Bias, Self Bias, Voltage Divider Bias, Source Bias methods and determine the various operational parameters with a wide range of components bank in a simple experimental way.

Features

- ❖ User friendly Design
- ❖ All-In-One gate bias modules
- ❖ Easy selection of Gate Bias, Self Bias, Voltage Divider bias and Source bias methods
- ❖ TO-72 Low Power Metal Transistor package
- ❖ N-Channel JFET
- ❖ Combinational Resistor Bank at Gate
- ❖ Resistor Bank at Drain and Source
- ❖ In-Built Dual Fixed regulated DC Power Supply
- ❖ Easy to select the different biasing resistors
- ❖ Facility to plot DC Load Line
- ❖ Very Easy for Operation
- ❖ Multi color Circuit Diagram is printed on the front panel of the board
- ❖ Enclosed in an attractive, light weight, High Quality, Poly Coated Imported Pine Wooden cabinet
- ❖ Facility to connect external Digital/Analog Voltmeter and Ammeter or Digital Meters
- ❖ 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 Dual Fixed ±12V/500mA
- ▪ Biasing Method　　　　　　　: Gate Bias, Self Bias, Voltage Divider Bias and Source Bias

- Transistor Type and Package : JFET-N Channel, TO-72 Package
- JFET Used : BFW10
- Pin Count : 4 Gate, Drain Source and Substrate
- Transistor Configuration : CS mode
- Max. Drain Source Voltage : 12 VDC
- Combinational Gate Resistor Bank : Six Gate Resistors includes Four Fixed and Two Variable
- Fixed Gate Resistor Bank : Four Fixed-MFR 10KΩ(2 No.) & 100KΩ (2No.), ±5%
- Variable Gate Resistor Bank : Two Variable 100KΩ Potentiometers
- Drain Load Resistor Bank : One Fixed-MFR 1KΩ, ±5% & Variable 100KΩ Potentiometer
- Source Resistor Bank : Fixed-MFR 100Ω, 1KΩ and 0Ω, ±5%.
    Variable 100KΩ Potentiometers
- 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 the need of Biasing circuits.
- To study the Gate Bias circuit of JFET.
- To study the Self-Bias circuit of JFET.
- To study the Voltage Divider Bias circuit of JFET.
- To study the Source Bias circuit of JFET.
- To Observe & Note the change in Drain Current w.r.t. change in Biasing Resistors.

Other Instruments Required

SINCOM Digital Multi VI meter (DMVI) : Model DMVI-03 Range V_1-20V, I_1-20mA, V_2-20V, I_2-200mA DC

Accessories Included : Set of Patch Cord and Details Instruction Manual

Subject to Change