

Transistor Characteristics in CB Mode with Digital Meters

Model : SA-113DM



SINCOM SA-113DM Transistor Characteristics in CB mode with Digital meters is comprehensive remarkable trainer to study Input and Output characteristics of Silicon NPN BJT in CB mode/configuration. The transistors are widely used as a basic element in every electronic circuits. Hence it is necessary to study and determine the various functional parameters of the BJT. The trainer is simply designed to study its characteristics and the various functional parameters in a simple experimental way. The trainer is equipped with on board Digital voltmeter and Digital Ammeter.

Features

- ❖ Silicon NPN Bipolar Junction Transistor of TO-92 package in CB mode is provided
- ❖ Individual control of Base and Collector DC Input voltage
- ❖ In-Built Variable regulated DC Power Supply
- ❖ Current controlling resistor in base and Collector
- ❖ Multi color Circuit Diagram printed on the front of the white board
- ❖ Enclosed in an attractive, light weight, High Quality, Poly Coated Imported Pine Wooden cabinet
- ❖ On Board 3^{1/2} Digit Digital Voltmeter and Ammeter
- ❖ User friendly Designed
- ❖ Very Easy for Operation
- ❖ 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	: Two Variable +12V/500mA and Fixed +5V/300mA
▪ Emitter-Base DC Supply	: IC Regulated variable 0V to -12V/500mA
▪ Collector-Base DC Supply	: IC Regulated variable 0V to +12V/500mA
▪ Transistor Package	: TO-92
▪ Transistor Type	: BJT-Silicon-NPN
▪ Transistor Used	: BC548
▪ Transistor Configuration	: CB mode
▪ Junction Voltage	: 0.7V

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▪ Max. Collector Emitter Voltage	: 12 VDC
▪ Max. Collector Base Voltage	: 12 VDC
▪ Max. Emitter Base Voltage	: 12 VDC
▪ Maximum Collector Current	: 20mA DC
▪ Emitter Current Controlling Resistor	: MFR 10KΩ, ±5%
▪ Collector Current Controlling Resistor	: MFR 1KΩ, ±5%
▪ Operating Junction Temperature	: -55 to +150 ⁰ C
▪ Total Digital Meters	: 04 (2 Voltmeter and 2 Ammeter)
▪ Digital Voltmeters	: 0-20V and 0-20V (Two Nos.)
▪ Digital Ammeter	: 0-20mA and 0-20mA (Two Nos.)
▪ Meter Display	: Red Color, 3 ^{1/2} Digit , LED Display
▪ 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 Transistor characteristics in CB Mode.
- To Study and Plot Input and Output Characteristics of BJT in CB Mode.
- To Determine Dynamic Input and Output resistance at a given operating point.

Other Instruments Required : Nil

Accessories Included : Set of Patch Cord and Details Instruction Manual