

Light Emitting Diode (LED) Characteristics

Model : SA-108



SINCOM SA-108 Light Emitting Diode (LED) Characteristics is very useful to study the V-I characteristics of different colors LEDs in forward bias mode. The Light Emitting Diode in short known as LED, are often used as a visual indicators and as an optical signal source in optical communications. The trainer is simply designed to study V-I characteristics and determine the parameters of the different colors LEDs in a simple experimental way. The trainer is without meters and has the facility to connect the external analog or digital voltmeter and ammeter in the circuit.

Features

- ❖ Convex Front 5mm Diameter LEDs of Red, Yellow and Green colors are provided
- ❖ Current controlling resistor in series
- ❖ Facility to vary wide range of applied DC input voltage
- ❖ In-Built Variable regulated DC Power Supply
- ❖ Easy to select the different colors LEDs
- ❖ Circuit Diagram printed in multi color on the front of the board.
- ❖ Enclosed in an attractive, light weight, High Quality, Poly Coated Imported Pine Wooden cabinet
- ❖ Facility to connect the external Digital/ Analog 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	: IC Regulated variable 0V to +12V / 500mA
▪ Diodes Used	: Light Emitting Diodes (LEDs)
▪ Total LEDs Used	: Three
▪ LEDs color	: Red, Yellow and Green
▪ LED Diameter	: 5mm
▪ Pin Count	: Two



An ISO 9001:2015 Co.

▪ Front	: Convex
▪ LED Current	: 10mA
▪ Operating Voltage	: 2V
▪ Viewing angle	: 40 ⁰
▪ Current Controlling Resistor	: MFR 1K Ω , \pm 5% in series
▪ Maximum Forward Current	: 25mA
▪ 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 Forward characteristics of Red, Yellow and Green colors Light Emitting Diodes (LED).
- To Observe & Note the Change in the Intensity & Voltage across LEDs w.r.t. applied forward Voltage.

Other Instruments Required

SINCOM Digital VI meter (DVI) : Model DVI-01 Range V-20V,I-20mA DC.

Accessories Included

Set of Patch Cord and Details Instruction Manual