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SINC [®]

Sindhu ELECTRONICS & COMMUNICATIONS PVT. LTD.

Electronics Educational Trainer Kits

Photo Diode Characteristics with Digital Meters

Model : SA-109DM



SINCOM SA-109DM Photo Diode Characteristics with Digital meters is remarkable standalone trainer which is very useful to study characteristics of Photo Diode under different light conditions. The Photo Diodes are basic building element of an Optical remote control and an Optical receiver circuits. The trainer is simply designed to study the Photo Diode characteristics and determine its various parameters in a simple experimental way. The trainer is equipped with on board Digital voltmeter & Digital Ammeter and variable light intensity source.

Features

- ❖ Plastic/ Metal Package Photo Diode on board.
- ❖ 5mm Diameter Photo Diodes with Convex Front
- ❖ Fast response time, Small junction capacitance and High photo sensitivity
- ❖ Current controlling resistor in series
- ❖ Facility to vary wide range of applied reverse DC input voltage
- ❖ In-Built Variable regulated DC Power Supply
- ❖ 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
- ❖ On Board 60W Lamp load with variable light intensity
- ❖ 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 ±10%, 50Hz
▪ DC Power Supply	: IC Regulated variable 0V to +12V / 500mA
▪ Diode Used	: Photo Diode
▪ Pin Count	: Two
▪ Diameter	: 5mm
▪ Front	: Convex

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- Viewing angle : 50°
- Dark Current : 5-50μA @
- Maximum Forward Current : 50mA
- Maximum Operating Voltage : 15V
- Current Controlling Resistor : MFR 100Ω, ±5% in series
- Light Source : 60W Lamp load max-Variable Intensity control
- Digital Voltmeter : 0-20V
- Digital Ammeter : 0-200mA
- 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°C, 80% RH

Learning Scope

- To Study and plot the characteristics of Photo Diode w.r.t. applied light intensity.
- To Determine the Dark Current of Photo Diode.
- To Observe & Note the Change in Photo Current & Voltage across Photo Diode w.r.t. change in the intensity of light & applied Reverse Voltage.

Other Instruments Required : Nil

Accessories Included : Set of Patch Cord, Lamp Load 60W and Details Instruction Manual