Photo Transistor Characteristics

Model : SA-123

SINCOM SA-123 Photo Transistor Characteristics is useful to study characteristics of Photo Transistor under different light conditions. The Photo Transistor are basic building element of an Optical remote control and an Optical receiver circuits. The trainer is simply designed to study the Photo Transistor characteristics and determine its various parameters in a simple experimental way. The trainer is without meters and has the facility to connect the external analog or digital voltmeter, ammeter and variable light intensity source in the circuit.

Features

- Plastic/ Metal Package Silicon NPN Photo Transistor
- Convex Front
- Fast response time , High photo sensitivity and Small junction capacitance
- 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
- Facility to connect the external Digital/ Analog 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
Photo Transistor Used	: Silicon NPN Photo Transistor
Pin Count	: Three
Front	: Convex
Viewing angle	: 70^0 @
Dark Current	: 10-100µA @
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
Weight	: 2.0 kg (approx)
Dimensions (mm)	: L 220 x W 270 x H 110
Interconnections	: 2mm Banana sockets
Operating Temperature	: 0-50^0C, 80% RH

Learning Scope

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

Other Instruments Required

SINCOM Digital VI meter (DVI) : Model DVI-02 Range V-20V,I-200mA DC. Dimmerstat single phase 230V.

Accessories Included

Set of Patch Cord, Lamp Load 60W with variable light intensity and Details Instruction Manual