

## Solar Cell Characteristics

**Model : SE-1101**



**SINCOM SE-1101 Solar Cell Characteristics** is remarkable trainer for examining the operation, characteristics and parameters of a solar cell in varying conditions with the facility to apply artificial variable intensity light source.

### Features

- ❖ Solar Cell panel with mount
- ❖ Different Resistive Loads
- ❖ Load Bank selector Rotary switch
- ❖ Square Front
- ❖ Fast response time
- ❖ High photo sensitivity
- ❖ Current controlling resistor in series
- ❖ Artificial light radiation source 100W Lamp with intensity control
- ❖ In-Built Variable regulated DC Power Supply
- ❖ Presents a multi-color Circuit Diagram printed on the front panel of the white board
- ❖ Enclosed in an attractive, light weight, High Quality, Poly Coated Imported Pine Wooden cabinet
- ❖ Interconnections by 2mm high quality banana sockets and pins.

### Technical Specifications

|                                   |  |
|-----------------------------------|--|
| ▪ AC Mains Power Supply           | : 230V $\pm 10\%$ , 50Hz                       |
| ▪ Fixed Regulated DC Power Supply | : +5V /500mA                                   |
| ▪ Variable DC Power Supply        | : Variable 0 to +12V                           |
| ▪ Solar Panel                     | : One number with mount                        |
| ▪ Solar Cell                      | : 6V/12V                                       |
| ▪ Power                           | : 3W-10W                                       |
| ▪ Light Source                    | : 100W Lamp with Variable Intensity control    |
| ▪ Front                           | : Square/Rectangle                             |
| ▪ Load Bank                       | : 5 Resistive load with rotary selector switch |
| ▪ Maximum Forward Current         | : 200mA  |



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|                                |                           |
|--------------------------------|---------------------------|
| ▪ Maximum Output Voltage       | : 6V/12V                  |
| ▪ Current Controlling Resistor | : MFR 100Ω, ±5% in series |
| ▪ Weight                       | : 3.0 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 the operation of Solar Cell.
- To Study the Illumination Characteristics.
- To study the V-I Characteristics of Solar Cell w.r.t. applied variable light Input.
- To study the Power- Load characteristics for the variation of Power and load current w.r.t. change of load resistors for a constant light input.
- To Study the Aerial Characteristics.

**Other Instruments Required :** Digital Multimeter

**Accessories Included :** Solar modules with stand, Light source 100W with intensity control, Set of Patch Cord and Details Instruction Manual.