

## LASER Diode Characteristics with Digital Meters

**Model : SA-107DM**



**SINCOM SA-107DM LASER Diode Characteristics** with Digital meters is remarkable self contained trainer which is very useful to study the V-I characteristics of LASER diode in forward bias mode. The Laser Diodes are often used as an optical signal source in optical communications, as a laser pointer and basic laser sources widely used in Blu-ray players and barcode readers. The trainer is simply designed to study V-I characteristics and determine the parameters of the Laser diode in a simple experimental way. The trainer is equipped with on board Digital voltmeter and Digital Ammeter.

### Features

- ❖ On Board 2 LASER Diodes are provided
- ❖ CAN type Red Color package
- ❖ 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 Laser Diodes
- ❖ 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
- ❖ On Board 3<sup>1/2</sup> 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       | : IC Regulated variable 0V to +12V / 500mA |
| ▪ Total Diodes Used     | : Two                                      |
| ▪ Diodes Used           | : LASER Diodes                             |
| ▪ Pin Count             | : Two                                      |
| ▪ Diode Package         | : CAN type- Hole mounting                  |
| ▪ Peak Wavelength       | : 650nm                                    |



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|                                 |   |
|---------------------------------|---|
| ▪ Current Controlling Resistor  | : MFR 1KΩ, ±5% in series                          |
| ▪ Typical single supply voltage | : 3.3V  |
| ▪ Maximum Forward Current       | : 25mA  |
| ▪ Operating Temperature range   | : -10 to +55 <sup>0</sup> C                       |
| ▪ Power Dissipation             | : 5mW maximum                                     |
| ▪ Digital Voltmeter             | : 0-20V   |
| ▪ Digital Ammeter               | : 0-20mA  |
| ▪ Meter Display                 | : Red Color, 3 <sup>1/2</sup> 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 <sup>0</sup> C, 80% RH                     |

### Learning Scope

- To Study the Forward characteristics of Semiconductor LASER Diode.
- To plot light Vs Current of a LASER Diode.

### Other Instruments Required : Nil

### Accessories Included

Set of Patch Cord and Details Instruction Manual