



An ISO 9001:2015 Co.

## Zener Diode Characteristics with Digital Meters

**Model : SA-102DM**



**SINCOM SA-102DM Zener Diode Characteristics** with digital meters is self contained trainer which is very useful to study the V-I characteristics different Zener Diodes which are widely used in various common need voltage stabilization circuits. The trainer is simply designed to plot the zener characteristics and determine the zener voltage under test in a simple experimental way. The trainer is equipped with on board Digital voltmeter and Digital Ammeter.

### Features

- ❖ Zener Diode used is Silicon Planer Power in DO-41 package
- ❖ Two Zener diodes of different voltage ratings are provided
- ❖ Low forward voltage drop
- ❖ High operating Temperature range
- ❖ In-Built Variable regulated DC Power Supply
- ❖ Multi color Circuit Diagram is screen printed on the front of the white color acrylic 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
- ❖ Easy to select the different Zener Diodes
- ❖ 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 | : 230 $\pm$ 10%, 50Hz                                     |
| ▪ DC Power Supply       | : IC Regulated Variable 0V to +12V/500mA, Fixed +5V/300mA |
| ▪ Zener Diodes Used     | : Two Nos.  |
| ▪ Zener Voltage         | : 5.6V and 6.2V $\pm$ 10%                                 |
| ▪ Diode Package         | : DO-41 Tape and Reel type                                |



An ISO 9001:2015 Co.

- |                             |  |
|-----------------------------|--|
| ▪ Digital Voltmeter         | : 0-20V and 0-2V                                     |
| ▪ Digital Ammeter           | : 0-20mA and 0-2mA                                   |
| ▪ Meter Display             | : Red Color, 3 <sup>1/2</sup> Digit , LED Display    |
| ▪ Forward Voltage Drop      | : 1.2V at T <sub>A</sub> = 25 <sup>0</sup> c         |
| ▪ Surge current             | : 810 - 730mA at T <sub>A</sub> = 25 <sup>0</sup> c, |
| ▪ Maximum Regulator current | : 162mA at T <sub>A</sub> = 50 <sup>0</sup> c        |
| ▪ Reverse leakage current   | : 10μA at T <sub>A</sub> = 25 <sup>0</sup> c         |
| ▪ Power dissipation         | : 1W maximum   |
| ▪ Junction Temperature      | : 200 <sup>0</sup> c                                 |
| ▪ Maximum Dynamic Impedance | : 700 Ω at T <sub>A</sub> = 25 <sup>0</sup> c        |
| ▪ Weight                    | : 2.5 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 Plot the Forward characteristics of Zener Diodes.
- To Plot the Reverse characteristics of Zener Diodes.
- To Determine the Zener Voltage V<sub>z</sub> from the reverse characteristics of Zener Diode.

**Other Instruments Required :** Nil

### Accessories Included

Set of Patch Cords and Details Instruction Manual