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Zener Diode Characteristics

Model : SA-102



SINCOM SA-102 Zener Diode Characteristics 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 Zzener voltage under test in a simple experimental way. The trainer is without meters and has the facility to connect the external analog or digital voltmeter and ammeter in the circuit.

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
- ❖ Facility to connect the external Digital/ Analog 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
▪ Zener Diodes Used	: Two Nos.
▪ Zener Voltage	: 5.6V and 6.2V \pm 10%



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▪ Diode Package	: DO-41 Tape and Reel type
▪ Forward Voltage Drop	: 1.2V at $T_A = 25^{\circ}\text{C}$
▪ Surge current	: 810 - 730mA at $T_A = 25^{\circ}\text{C}$,
▪ Maximum Regulator current	: 162mA at $T_A = 50^{\circ}\text{C}$
▪ Reverse leakage current	: 10 μA at $T_A = 25^{\circ}\text{C}$
▪ Power dissipation	: 1W maximum
▪ Junction Temperature	: 200 $^{\circ}\text{C}$
▪ Maximum Dynamic Impedance	: 700 Ω at $T_A = 25^{\circ}\text{C}$
▪ Weight	: 2.0 kg (approx)
▪ Dimensions (mm)	: L 220 x W 270 x H 110
▪ Interconnections	: 2mm Banana sockets
▪ Operating Temperature	: 0-50 $^{\circ}\text{C}$, 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_z from the reverse characteristics of Zener Diode.

Other Instruments Required :

SINCOM Digital VI meter (DVI) : Model DVI-01 Range V-20V, I-20mA DC

Accessories Included : Set of Patch Cord and Details Instruction Manual