

## Tunnel Diode Characteristics

### Model : SA-104

**SINCOM SA-104 Tunnel Diode Characteristics** is useful to study the V-I characteristics of Tunnel diode in Forward and Reverse bias modes. A tunnel diode which is also known as Esaki Diode has effectively negative resistance due to the quantum mechanical effect called tunneling. A tunnel diode is one of the most commonly used negative conductance devices functions as oscillators and amplifiers, and in switching circuits. The trainer is simply designed to study the various aspects of Tunnel diode 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

- ❖ Low power Tunnel diode
- ❖ In-Built Variable regulated DC Power Supply
- ❖ 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
- ❖ Facility to connect the external Digital/ Analog Voltmeter and Ammeter
- ❖ Facility to select the Forward and Reverse mode of 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	: 230V $\pm 10\%$ , 50Hz
▪ DC Power Supply	: IC Regulated variable 0V to +12V / 500mA
▪ Diodes Used	: One Tunnel Diode
▪ Power dissipation	: Low
▪ Operating Junction Temperature	: -65 to +150 $^{\circ}\text{C}$
▪ 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 Study the Forward and Reverse bias Characteristics of Tunnel Diode .
- To Plot V-I characteristics of Tunnel 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.