

Tunnel Diode Characteristics with Digital Meters

Model : SA-104DM

SINCOM SA-104DM Tunnel Diode Characteristics with Digital Meters is self contained trainer which 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 equipped with on board Digital voltmeter and Digital Ammeter.

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
- ❖ On Board 3^{1/2} Digit Digital 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, Fixed +5V/300mA
▪ Diodes Used	: One Tunnel Diode
▪ Power dissipation	: Low
▪ Operating Junction Temperature	: -65 to +150 ⁰ C
▪ Digital Voltmeter	: 0-20V
▪ Digital Ammeter	: 0-20mA
▪ Meter Display	: Red Color, 3 ^{1/2} Digit , LED Display
▪ Weight	: 2.5 kg (approx)
▪ Dimensions (mm)	: L 220 x W 270 x H 110
▪ Interconnections	: 2mm Banana sockets
▪ Operating Temperature	: 0-50 ⁰ 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 : Nil

Accessories Included : Set of Patch Cord and Details Instruction Manual.