UJT (Uni-Junction Transistor) Characteristics With Digital Meters

Model : SA-116DM

SINCOM SA-116DM Uni-Junction Transistor (UJT) Characteristics with Digital meters is comprehensive remarkable trainer is useful to study V-I characteristics of UJT. The UJT are widely used in Pulse, Switching, Timing, Sensing, Thyristor Phase control and voltage detector circuit. The trainer is simply designed to plot its characteristics and determine the various operational parameters in a simple experimental way. The trainer is equipped with on board Digital voltmeter and Digital Ammeter.

Features

- Silicon PN Uni-junction TO-18 Metal Transistor type UJT is provided
- Individual control of Emitter and Base-2 Input DC voltages
- Current controlling resistors in Emitter, Base-1 and Base-2
- In-Built Variable regulated DC Power Supply
- Multi color Circuit Diagram printed on the front of the white 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
- 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 ±10%, 50Hz
- DC Power Supply : Two Nos. Variable +12V/500mA
- Emitter-Base1 V_{EB} : IC Regulated variable 0V to +12V/500mA
- Base2-Base1 V_{BB} : IC Regulated variable 0V to +12V/500mA

- Transistor Package : TO-18
- UJT Type : Silicon PN Uni-Junction Transistor
- UJT Used : 2N2646
- Emitter Current Controlling Resistor : MFR 1KΩ, ±5%
- Base2 Current Controlling Resistor : MFR 10KΩ, ±5%
- Base1 Current Controlling Resistor : MFR 470Ω, ±5%
- Intrinsic Standoff Ration η : 0.56 -0.75 (V_{B2B1}=10V)
- Max. Two bases Voltage V_{B2B1} : 35V
- Max. Emitter Reverse Voltage V_{B2E} : 30V
- Max. RMS Emitter Current (Ie) : 50mA
- Max. Peak Emitter Current (Ie) : 2A
- Max. Power Dissipation : 300mW
- Operating Junction Temperature : -65 to $+150^0$c
- Total Digital Meters : 03 (2 Voltmeter and 1 Ammeter)
- Digital Voltmeters : 0-20V and 0-20V (Two Nos.)
- Digital Ammeter : 0-20mA (One No.)
- Meter Display : Red Color, $3^{1/2}$ Digit , LED Display
- Weight : 2.0 kg (approx)
- Dimensions (mm) : L 220 x W 270 x H 110
- Interconnections : 2mm Banana sockets
- Operating Temperature : 0-50^0C, 80% RH

Learning Scope

- To study the operation of UJT.
- To Study the V-I characteristics of UJT for the Different Values of applied V_{BB} Voltage.
- To Determine Peak-Point (Vp) & Vallay-Point (Vv) Voltage of UJT.

Other Instruments Required : **Nil**

Accessories Included : Set of Patch Cord and Details Instruction Manual

Subject to Change