



An ISO 9001:2015 Co.

IC 78XX as Positive Voltage Regulator

Model : SB-117

SINCOM SB-117 IC 78XX as Positive Voltage Regulator is very useful simply designed trainer to study the operation and line regulation characteristics of IC 7805 and IC7809 as a Positive Voltage Regulator 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

- ❖ User friendly Design
- ❖ TO220 three pin IC Package
- ❖ IC LM7805 and IC LM7809 positive voltage regulators are provided
- ❖ IC includes Current limiting, thermal over load protection and safe operating area protection
- ❖ +5V and +12V Two Fixed Regulated DC Output voltage
- ❖ Low Output voltage Ripples
- ❖ Variable Unregulated DC Input source using Center Tap Full Wave Rectifier and Capacitor Filter circuit
- ❖ High operating Temperature range
- ❖ Separate Facility to vary wide range of applied DC Input voltages
- ❖ In-Built Variable regulated DC Power Supply
- ❖ Very Easy for Operation
- ❖ Multi color Circuit Diagram is screen printed on the front of the white board
- ❖ Enclosed in an attractive, light weight, High Quality, Poly Coated Imported Pine Wooden cabinet
- ❖ Facility to connect external Digital/Analog Voltmeter and Ammeter
- ❖ Interconnections by 2mm high quality banana sockets and pins
- ❖ Maximum Test points to explore all the corners of experiment
- ❖ 1 Year Warranty

Technical Specifications

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|----------------------------|--|
| ▪ AC Mains Power Supply | : 230V \pm 10%, 50Hz |
| ▪ DC Power Supply | : IC Regulated Variable 0V to +12V/500mA |
| ▪ Transformer ratings | : Center tap Step Down 12V-0V-12V/500mA/50Hz |
| ▪ Rectifier and Filter | : Full Wave Center Tap Rectifier with Capacitor filter |
| ▪ Unregulated DC Input Vin | : Two Nos. Variable 0V to 12V DC Input for IC7805 and IC7809 |
| ▪ Regulated DC Output Vo | : +5V and +9V |
| ▪ Input Voltage Control | : By two 10K Ω Potentiometers |
| ▪ IC Used | : IC LM7805 and 7809 positive Voltage regulator |
| ▪ IC Package | : 3 Pin TO-220 Package |
| ▪ IC Output Current | : 0.5A Max |
| ▪ Load Resistor | : 10K Ω Resistive Load |
| ▪ Regulation type | : Line Regulation |
| ▪ Weight | : 2.0 kg (approx) |
| ▪ Dimensions (mm) | : L 220 x W 270 x H 110 |



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- Interconnections : 2mm Banana sockets
- Operating Temperature : 0-50°C, 80% RH

Learning Scope

- To Study IC 7805 as a Positive voltage regulator. Compare theoretical & Practical values.
- To Study IC 7809 as a Positive voltage regulator. Compare theoretical & Practical values.
- To Study Change in O/P Voltage w.r.t. change in I/P Voltage with Load RL constant (Line Regulation)
- To Study Change in O/P Voltage w.r.t change in Load RL with I/P voltage constant (Load Regulation)

Other Instruments Required

SINCOM Digital VV meter (DVV) : Model DVV-01 Range V_1 -20V, V_2 -20V DC

Accessories Included : Set of Patch Cord and Details Instruction Manual