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SINC [®]

Sindhu ELECTRONICS & COMMUNICATIONS PVT. LTD.

Electronics Educational Trainer Kits

IC 723 as Positive Low and High Voltage Regulator

Model : SB-115



SINC SB-115 IC723 as Positive Low and High Voltage Regulator is a Two-In-One simply designed trainer very useful to study the operation, line and load regulation characteristics of IC723 as Positive Low and High Voltage Regulator with variable load 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
- ❖ Two separate modules of IC723 as a Positive Low and High Voltage Regulator circuits
- ❖ IC723 wired with Resistive and Capacitive network as a linear Positive Low and High Voltage Regulator
- ❖ Adjustable Low Regulated DC Output voltage between 2V to 7V
- ❖ Adjustable High Regulated DC Output voltage between 7V to 27V
- ❖ Output Voltage Control by two separate Potentiometers
- ❖ High operating Temperature range
- ❖ Variable Resistive Load
- ❖ Facility to vary wide range of applied DC Input voltage
- ❖ Facility to vary regulated Output DC Voltage
- ❖ 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

- AC Mains Power Supply : 230V \pm 10%, 50Hz
- DC Power Supply : IC Regulated Variable 0V to +40V/500mA



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| ▪ Unregulated Low DC Input Vin | : 0 to +12V DC Input for Low Voltage |
| ▪ Unregulated High DC Input Vin | : 0 to +40V DC Input for High Voltage |
| ▪ Regulated DC Low Output Vo | : Adjustable low voltage between 2V to 7V |
| ▪ Regulated DC High Output Vo | : Adjustable high voltage between 7V to 27V |
| ▪ Output Voltage Control | : By two separate 10K Ω Potentiometer |
| ▪ IC Used | : IC LM723 Monolithic Programmable IC Voltage regulator |
| ▪ Total ICs provided | : Two IC LM723 |
| ▪ IC Package | : 14 Pin DIP Plastic Package |
| ▪ IC Output Current | : 150mA Max without external pass transistor |
| ▪ Load Resistor | : Two Separate 10K Ω Variable Resistive Load |
| ▪ Regulation type | : Line and Load Regulation |
| ▪ Weight | : 3.0 kg (approx) |
| ▪ Dimensions (mm) | : L 245 x W 320 x H 115 |
| ▪ Interconnections | : 2mm Banana sockets |
| ▪ Operating Temperature | : 0-50 $^{\circ}$ C, 80% RH |

Learning Scope

- To Study IC 723 as (adjustable) Positive Low voltage regulator. Compare theoretical & Practical values.
- To Study IC 723 as (adjustable) Positive High 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 Multi VI meter (DMVI) : Model DMVI-03 Range V_1 -20V, I_1 -20mA, V_2 -20V, I_2 -200mA DC

Accessories Included : Set of Patch Cord and Details Instruction Manual