



An ISO 9001:2015 Co.

IC 723 as Negative Voltage Regulator with Digital Meters

Model : SB-114DM

SINCOM SB-114DM IC723 as Negative Low Voltage Regulator with Digital meters is a remarkable self contained simply designed trainer useful to study the operation, line and load regulation characteristics of IC723 as Negative Low Voltage Regulator with variable load in a simple experimental way. The trainer is equipped with on board Digital voltmeter & Digital Ammeter.

Features

- ❖ User friendly Design
- ❖ IC723 wired with Resistive, Capacitive and PNP Transistor network as a linear Negative Low Voltage Regulator
- ❖ Adjustable Regulated Negative DC Output voltage between -2V to -7V.
- ❖ Output Voltage Control by two Resistors
- ❖ High operating Temperature range
- ❖ Variable Resistive Load
- ❖ Facility to vary wide range of applied negative DC Input voltage
- ❖ Facility to vary negative regulated Output DC Voltage
- ❖ In-Built Variable regulated negative DC Power Supply
- ❖ Very Easy for Operation
- ❖ Multi color Circuit Diagram printed on the front panel 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
- ❖ 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 |
| ▪ Unregulated DC Input Vin | : 0 to -12V DC Input |
| ▪ Regulated DC Output Vo | : Adjustable between -2V to -7V |
| ▪ Output Voltage Control | : By Two fixed Resistors at Error amplifier IN |
| ▪ IC Used | : IC LM723 Monolithic Programmable IC Voltage regulator |
| ▪ IC Package | : 14 Pin DIP Plastic Package |
| ▪ IC Output Current | : 150mA Max without external pass transistor |
| ▪ Load Resistor | : 10K Ω Variable Resistive Load |
| ▪ Regulation type | : Line and Load Regulation |
| ▪ Total Digital Meters | : 03 (2 Voltmeter and 1 Milliammeter) |
| ▪ Digital Voltmeter | : 0-20V (2 No.) |
| ▪ Digital Ammeter | : 0-20mA (1No.) |
| ▪ Meter Display | : Red Color, 3 ^{1/2} Digit , LED Display |



An ISO 9001:2015 Co.

- | | |
|-------------------------|-------------------------------|
| ▪ Weight | : 2.0 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 IC 723 as (adjustable) Negative low 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.