

## JFET Characteristics

**Model : SA-117**



**SINCOM SA-117 JFET Characteristics** is useful to study Drain and Transfer characteristics of JFET. The JFET is widely used as a switching and an amplification device in many electronics circuits. The trainer is simply designed to plot its characteristics and determine the various operational parameters 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

- ❖ N-Channel JFET of TO-72 Metal Transistor package is provided
- ❖ Low Power, High Frequency Device
- ❖ Individual control of Gate and Drain Input DC voltages
- ❖ Current controlling resistors in Gate and Drain
- ❖ 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
- ❖ Facility to connect the external Digital/ Analog 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	: $230V \pm 10\%$ , 50Hz
▪ DC Power Supply	: Two Nos. Variable $\pm 12V/500mA$
▪ Gate-Source Voltage $V_{GG}$	: IC Regulated variable 0V to -12V/500mA
▪ Drain-Source Voltage $V_{DD}$	: IC Regulated variable 0V to +12V/500mA
▪ Transistor Package	: TO-72
▪ JFET Type	: N Channel Depletion



An ISO 9001:2015 Co.

▪ JFET Used	: BFW10
▪ Pin Count	: 4 Gate, Drain Source and Substrate
▪ Gate Current Controlling Resistor	: MFR 100KΩ, ±5%
▪ Drain Current Controlling Resistor	: MFR 10KΩ, ±5%
▪ Max. Drain-Source Voltage $V_{DS}$	: 30V DC
▪ Max. Drain-Gate Voltage $V_{DG}$	: 30V DC
▪ Reverse Gate-Source Voltage $V_{GSR}$	: -30V DC
▪ Forward Gate Current $I_{GF}$	: 10mA DC
▪ Operating Junction Temperature	: -65 to +150°C
▪ Weight	: 2.0 kg (approx)
▪ Dimensions (mm)	: L 220 x W 270 x H 110
▪ Interconnections	: 2mm Banana sockets
▪ Operating Temperature	: 0-50°C, 80% RH

### Learning Scope

- To Study the Drain characteristics of JFET.
- To Study the Transfer characteristics of JFET.
- To Determine VGS Cut-off Voltage of given JFET.

### 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