

MOSFET as Amplifier

Model : SD-117



SINCOM SD-117 MOSFET as Amplifier is simply designed trainer for the purpose to study the concept, operation, Frequency response and determine the Bandwidth, Voltage gain and other parameters of MOSFET as an Amplifier in a simple experimental way.

Features

- ❖ User friendly Design
- ❖ N Channel E type MOSFET with voltage divider biasing in CS mode operates as a MOSFET amplifier circuit
- ❖ N-Channel Enhancement type power MOSFET of TO-220 package on board
- ❖ Resistive Drain Load
- ❖ Input and Output Coupling Capacitors
- ❖ In-Built Fixed regulated DC Power Supply
- ❖ Very Easy for Operation
- ❖ Multi color Circuit Diagram is printed on the front panel of the white board
- ❖ Enclosed in an attractive, light weight, High Quality, Poly Coated Imported Pine Wooden cabinet
- ❖ Facility to connect external Function Generator and Oscilloscope
- ❖ 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 Fixed +12V/500mA
▪ Transistor Type and Package	: N Channel Enhancement type MOSFET, TO-220 Package
▪ MOSFET Used	: IRF540/840
▪ MOSFET Configuration	: Common Source (CS) mode
▪ Biasing Method	: Voltage Divider Bias
▪ Max. Drain Source Voltage	: 12 VDC



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▪ Gate Source Voltage V_{GS}	: 5V
▪ Gate Resistors	: Two No.
▪ Source Resistor	: One No. with bypass capacitor
▪ Input Output Coupling Capacitors	: Two No. Electrolytic type
▪ Drain Load	: 10KΩ Fixed Resistive Load
▪ Input Signal Type	: Sine wave
▪ Max. Input Frequency Range	: 60Hz-500KHz approx.
▪ Output Frequency Response	: 100Hz-50KHz approx.
▪ 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 MOSFET as Amplifier circuit.
- To Observe & Note change in output w.r.t. change in I/P Frequency.
- To Plot frequency response & To Determine Bandwidth, Voltage Gain

Other Instruments Required : Oscilloscope, Function Generator 1MHz.

Accessories Included : Set of Patch Cord and Details Instruction Manual