

## Cascode Amplifier using JFET

**Model : SD-148**



**SINC SD-148 Cascode Amplifier using JFET** is very useful simply designed trainer to study the concept, operation, Frequency response and determine the Bandwidth, over all Voltage gain and other parameters of a Cascode Amplifier using JFET in a simple experimental way.

### Features

- ❖ Two N Channel JFET with Self base biasing operates as a Cascode amplifier circuit
- ❖ N-Channel JFET of TO-72 package on board
- ❖ Resistive Drain Load
- ❖ Wide Bandwidth AF Amplifier
- ❖ Input and Output Coupling Capacitors
- ❖ In-Built Fixed regulated DC Power Supply
- ❖ User friendly Design
- ❖ 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
▪ Amplifier Type	: Cascode Amplifier
▪ Transistor Type and Package	: N-Channel JFET, TO-72 Package
▪ JFET Used	: Two BFW10
▪ JFET Configuration	: JFET Cascode
▪ Biasing Method	: Self Bias
▪ Max. Drain Source Voltage	: 12 VDC



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|------------------------------------|-------------------------------------|
| ▪ Gate Resistors                   | : Two No.                           |
| ▪ Source Resistor                  | : One No. with bypass capacitor     |
| ▪ Input Output Coupling Capacitors | : Two No. Electrolytic type         |
| ▪ Drain Load                       | : 10K $\Omega$ 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 <sup>0</sup> C, 80% RH       |

### Learning Scope

- To study the Cascode Amplifier using JFET .
- To Observe & Note the change in O/P w.r.t. change in I/P Frequency.
- To Plot the frequency response & To Determine Bandwidth amplifier

**Other Instruments Required :** Oscilloscope, Function Generator 1MHz.

**Accessories Included :** Set of Patch Cord and Details Instruction Manual