

BJT as a Relaxation Oscillator

Model : SE-116

SINCOM SE-116 BJT as a Relaxation Oscillator is a useful trainer to study the concept and operation of BJT as a Relaxation Oscillator with different resistors and capacitor bank to produce multiple frequency outputs in a simple experimental way.

Features

- ❖ BJT Transistor circuit of a self bias CE Amplifier with RC Feedback elements.
- ❖ Wide range of relaxation oscillator frequencies
- ❖ RC Bank to provide different output frequency signals
- ❖ Facility to note different signals at Base, Emitter and collector
- ❖ 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 Oscilloscope and Digital Meters.
- ❖ 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/300mA
▪ BJT Type and Package	: BJT Silicon-NPN BC548, TO-92 Package
▪ Amplifier Type	: BJT Single Stage Self bias CE Amplifier
▪ Feedback Elements	: RC network
▪ Load type	: Resistive 10K Ω .
▪ Output Control by	: Potentiometer and Capacitors
▪ Output Frequencies	: Wide variable in KHz.
▪ Max. Collector Emitter Voltage	: 12 VDC
▪ Weight	: 2.0 kg (approx)
▪ Dimensions (mm)	: L 220 x W 270 x H 110
▪ Interconnections	: 2mm Banana sockets
▪ Operating Temperature	: 0-50 $^{\circ}$ C, 80% RH

Learning Scope

- To Study operation of BJT as Relaxation oscillator Circuit.
- To Study waveforms at Capacitor and output.
- To Observe & Note Change in Frequency/Time Period of Oscillation w.r.t. change in R & C of BJT.
- Compare the Theoretical & Practical values.

Other Instruments Required :

Digital Multimeter and Oscilloscope

Accessories Included :

Set of Patch Cord and Details Instruction Manual.