

UJT as a Relaxation Oscillator

Model : SE-115



SINC SE-115 UJT as a Relaxation Oscillator is a useful trainer to study the concept and operation of UJT as a Relaxation Oscillator with different resistors and capacitor bank to produce multiple frequency outputs in a simple experimental way.

Features

- ❖ UJT of TO-18 metal package transistor
- ❖ UJT circuit of a RC component bank at emitter
- ❖ Current controlling resistors in Base-1 and Base-2
- ❖ Wide range of relaxation oscillator frequencies
- ❖ RC Bank to provide different output frequency signals
- ❖ Facility to note different signals at Emitter and Base 2.
- ❖ 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

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| ▪ AC Mains Power Supply | : 230V \pm 10%, 50Hz |
| ▪ DC Power Supply | : IC Regulated Fixed +12V/300mA |
| ▪ UJT Type and Package | : UJT 2N2646 Silicon PN Uni-Junction Transistor, TO-18 |
| ▪ Intrinsic Standoff Ration η | : 0.56 -0.75 ($V_{B2B1}=10V$) |
| ▪ Emitter control | : RC bank |



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| ▪ Load type | : Resistive 1K Ω . |
| ▪ Output Control by | : Two resistors and two capacitors |
| ▪ Output Frequencies | : Wide variable in KHz. |
| ▪ Max. Base 2-Base-1 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 ⁰ C, 80% RH |

Learning Scope

- To Study operation of UJT as Relaxation oscillator Circuit.
- To Study waveforms at Capacitor, Base1 & Base2.
- To Observe & Note Change in Frequency/Time Period of Oscillation w.r.t. change in R & C connected at Emitter of UJT.
- Compare the Theoretical & Practical values.

Other Instruments Required : Digital Multimeter and Oscilloscope

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