

STUDY OF HYBRID – PARAMETERS OF A TRANSISTOR,

MODEL - H - 01.



A Transistor has low input impedance and high output impedance and hence the use of Z and Y parameters becomes awkward specially at high frequency. As a result the hybrid of 'h' parameters are found to be most useful for transistor circuit analysis, because the hybrid parameters form a combination of impedance and admittance parameters and are selected to ideally suit the low input and high impedance of the transistor. Another advantage is that the parameters h_{11} , h_{12} almost correspond to the actual operating conditions.

The experimental set – up have been laid down on a decorated bakelite sheet with an aim of providing an easy understanding to the students. All components are well spread out for clarity and easy repairs and replacement. The set – up is provided with a booklet, which contains its details theory of operation description, specifications, suggestions and discussions on the various experiments that may be performed with it.

The following studies can be carried out with this set – up :

1. Study of h_{11} parameters (Input Impedance parameters).
2. Study of h_{22} parameters (Output Impedance parameters).
3. Study of h_{21} parameters (Forward Current transfer ratio).
4. Study of h_{12} parameters (Reverse Voltage Feedback Ratio).

The experimental set – up is provided with a builtin Power Supplies and it complete.

OTHER APPARATUS REQUIRED :

1. True RMS A.C. Millivoltmeter, Model – ACM – 536.
(with builtin 1 KHz Oscillator)