46520 Power Electronic Training Board has been designed specifically to study the Dv/Dt characteristics of SCR. It is essential to improve the Dv/Dt capability of SCRs to avoid false firing which may be disastrous in some applications.
Different schemes given on the board, help the students to design and study various snubber circuits to improve the Dv/Dt capability of thyristors.
Practical experience on this board carries great educative value for Science and Engineering Students.

OBJECT

To perform the following experiments :

1. Test dv/dt estimation of the SCR.
2. Compare Dv/Dt capability by Gate-Cathode terminations.
3. Compare Dv/Dt capability by Gate-Cathode biasing (Voltage biasing).
4. Compare Dv/Dt capability by Gate-Cathode biasing (Current biasing).
5. To improve Dv/Dt capability by transistor snubber circuit.
6. Effect of R.C. Snubber circuit on Dv/Dt capability.
7. Study of different Scheme of R.C. Snubber circuit on Dv/Dt capability.

FEATURES

The board consists of following built-in parts:

1. 300V D.C. at 250 mA, Power Supply internally connected.
2. Thyristor switch for applying sudden voltage on the SCR under experiment.
3. The SCR under experiment.
4. Resistance for gate-cathode termination.
5. Silicon diode.
6. Transistorized snubber circuit.
7. Two schemes for R-C snubber circuits.
8. Visual indication to indicate SCR firing.
9. Adequate no. of other Electronic Components.
10. Mains ON/OFF switch, Fuse and Jewel light.
11. The unit is operative on 230V ±10% at 50Hz A.C. Mains.
12. Adequate no. of patch cords stackable 4 mm spring loaded plug length 50cm.
13. Good Quality, reliable terminal/sockets are provided at appropriate places on panel for connections/ observation of waveforms.
14. Strongly supported by detailed Operating Instructions, giving details of Object, Theory, Design procedures, Report Suggestions and Book References.
15. Weight : 2.00 Kg.(Approx.)
16. Dimension : W 340 x H 125 x D 210

OTHER APPARATUS REQUIRED:

1. Digital Multimeter 3¾ digit
2. 0-30V, 1Amp IC Regulated Power Supply

Note: Specifications are subject to change.

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