OMEGA®

A SIGN OF QUALITY PRODUCT

REGULATED POWER SUPPLIES

OMEGA TYPE ETB-29

OMEGA TYPE ETB-29 Experimental Training Board has been designed specifically for the study of various techniques used for designing transistorised voltage regulated power supplies. A voltage regulated power supply forms an essential part of many electronic equipment.

OBJECT

01 To study half wave rectification.
02 To study full wave rectification.
03 To study measurement of ripple and ripple reduction methods using the following:
3.1 Capacitor filter. **3.2** Inductor filter.
3.3 Choke input of L.C. filter. 3.4 CLC or p filter.
04 To study Zener - diode voltage regulator circuit.
05 To study series voltage regulator.
06 To study series regulator with current limiting.
07 To study error feed-back type series voltage regulator.
08 To study the use of Darlington transistor pair for increasing the current capability of series voltage regulator.
09 To study a shunt voltage regulator with current limiting.
10 To study a shunt voltage regulator with adjustable current limiting.
11 To study a 0-9V D.C. continuously variable volt age regulated power supply and measure the following:
11.1 Line regulation.
11.2 Load regulation.
11.3 Ripple factor.

FEATURES

The board consists of the following built-in parts :

01 9V A.C. at 300mA, Power Supply.
02 0-200mA Electronic load.
03 Three NPN and one PNP transistor including a power transistor.
04 4 diodes, 3 Zener diodes, 2 potentiometers, 1 inductor.
05 Adequate no. of other electronic components.
06 Mains ON/OFF switch, Fuse and Jewel light.
07 The unit is operative on 230V ±10% at 50Hz A.C. Mains.
08 Adequate no. of patch cords stackable from rear both ends 4mm spring loaded plug length ½ metre.
09 Good Quality, reliable terminal/sockets are provided at appropriate places on panel for connections/ observation of waveforms.
10 Strongly supported by detailed Operating Instructions, giving details of Object, Theory, Design procedures, Report Suggestions and Book References.
11 Practical experience on these boards carries great educative value for Science and Engineering Students.
12 Weight : 3.400 Kg. (Approx.)
13 Dimension : W 340 x H 125 x D 210

OTHER APPARATUS REQUIRED :

01 DC Milliammeter 0-200mA
OMEGA TYPE MO-65
02 Voltmeter 15V OMEGA TYPE MO-65
03 Single Phase Variac Input 0-230V
Output 0-270V at 2Amp
04 Dual trace CRO 20MHz OMEGA TYPE CRO-20

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15-04-2024