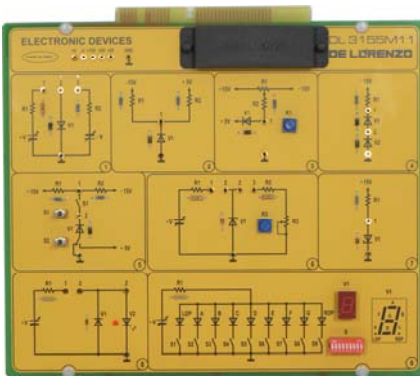




ELECTRONIC DEVICES



DL 3155M11

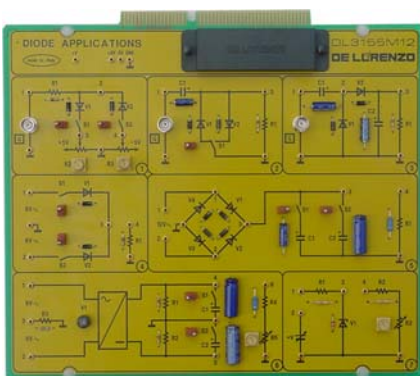
Theoretical topics:

- Physics of the semiconductors and joint P-N
- Semi conductive material
- Formation of a joint P-N
- Polarization of a joint P-N
- The ideal diode and the real diode
- Diode in dc circuits
- Check of the integrity of a diode through an ohmmeter
- Direct polarization
- Inverse polarization
- The Zener diode
- The diode as stabilizer
- The LED diode
- Fault simulation

Circuit blocks:

- Direct and inverse polarization of a diode
- Voltage at the diode ends
- Minimum and maximum voltages
- Minimum and maximum voltages with series connected diodes
- Characteristics of the Zener diode
- Zener diode as a voltage stabilizer
- Voltage value on a Zener diode
- Characteristics of a LED diode
- Seven segment digital display

DIODE APPLICATIONS



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Theoretical topics:

- Behaviour of the diode inserted in circuits that enclose generators of variable signals
- Simple and double clipper circuits
- Clamper circuits
- Half-wave voltage doublers
- Simple half-wave rectifier circuit
- Double half-wave rectifier circuit
- Bridge rectifier circuit
- Power supplies
- Filters
- Regulators
- Fault simulation

Circuit blocks:

- Clipping circuit
- Clamping circuit
- One half-wave voltage doubler
- Simple and double half-wave rectifier
- Diode bridge rectifier (Graetz bridge) with capacitive input filter
- Dual power supply
- Stabilized power supply