

This training system, together with National Instruments ELVIS II/II+, provides a learning platform that involves applications of diode circuits. This board contains various type of diodes with their application circuits. Diodes can be used in protection, switching, warning and rectification applications. The student learns AC-DC converter basics with half and full wave rectification with rectifier diodes and bridge rectifier diodes. Zener and TVS diodes are used for protection at inputs and outputs of clipper circuits. Zener diodes are regulator devices and also used for smoothing output waveforms. DC restoration circuits show students how DC shift is applied

to AC waveforms. A simple voltage doubler circuit is implemented on the board to illustrate the voltage multiplication application of diodes.

Diode Applications Manual includes brief explanation of the concepts listed below and the experiment procedures with their NI Multisim simulation examples. Students can compare the results of NI Multisim simulations and experiments.

## Diodes

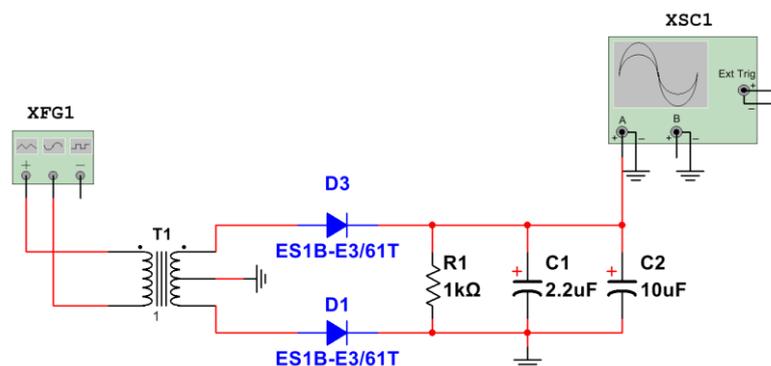
- ✓ Diode types and polarity
- ✓ Electrical characteristics of diodes
- ✓ Rectifier diodes, Zener diodes, transient voltage suppressing diodes (TVS) and Light Emitting Diodes (LEDs)
- ✓ Silicon Controlled Rectifiers (SCRs) theory and operation

## Rectifier Circuits

- ✓ Half and full wave rectifier circuits and applications
- ✓ Bridge rectifier circuits and applications
- ✓ AC-DC conversion

## Logarithmic Conversion

- ✓ Logarithmic conversion using diodes



## Voltage Clipping and Clamping

- ✓ Voltage clipping with Zener Diodes
- ✓ Dividing voltage with regulated output
- ✓ Voltage clamping with rectifier diodes

## DC Restoration and Voltage Doubler

- ✓ DC level shift with diodes
- ✓ Voltage doubler with diodes
- ✓ Voltage multipliers

## Diode Switches

- ✓ Switching signals with diodes



For more information on this product, please contact us at

ENOVAS Engineering

[sales@enovas.com.tr](mailto:sales@enovas.com.tr) | Tel: (+90) 216 576 2061 | Fax: (+90) 216 576 2091

Kaya Sultan Sokak No:83 Hayriye İş Merkezi Kat:4 Kozyatağı, Kadıköy 34742 İstanbul/Turkey