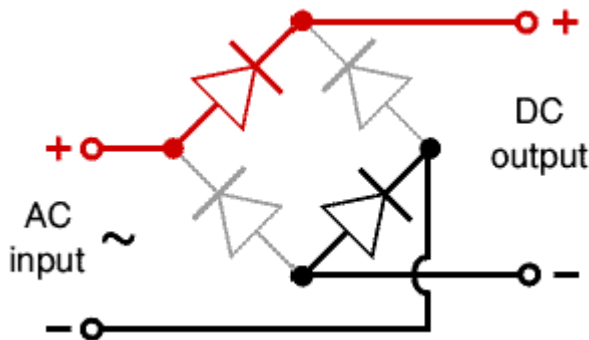


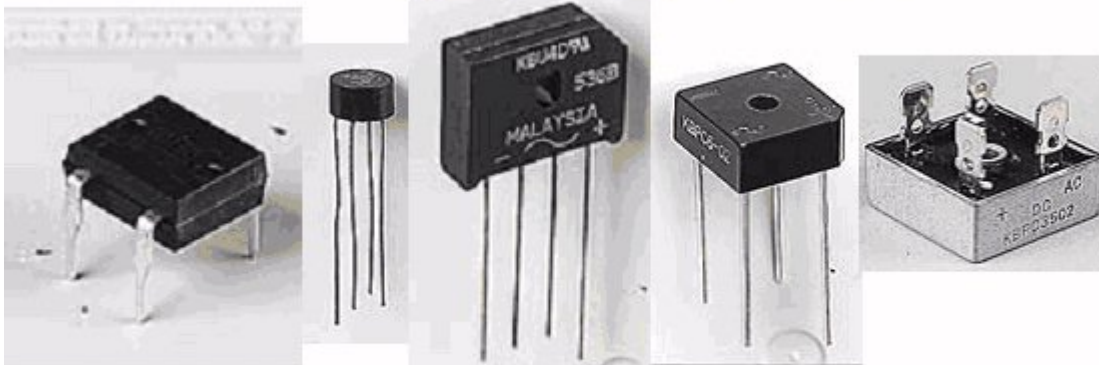
# Bridge rectifier

A diode bridge (occasionally called a Graetz bridge) is an arrangement of four diodes connected in a bridge circuit as shown below, that provides the same polarity of output voltage for any polarity of the input voltage. When used in its most common application, for conversion of alternating current (AC) input into direct current (DC) output, it is known as a bridge rectifier. The bridge rectifier provides full wave rectification from a two wire AC input (saving the cost of a center tapped transformer) but has two diode drops rather than one reducing efficiency over a center tap based design for the same output voltage.



The diagram shows the operation of a bridge rectifier as it converts AC to DC. Notice how alternate pairs of diodes conduct.

## Various types of Bridge Rectifiers



Note that some have a hole through the centre for attaching to a heat sink  
Photographs courtesy of Rapid Electronics

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