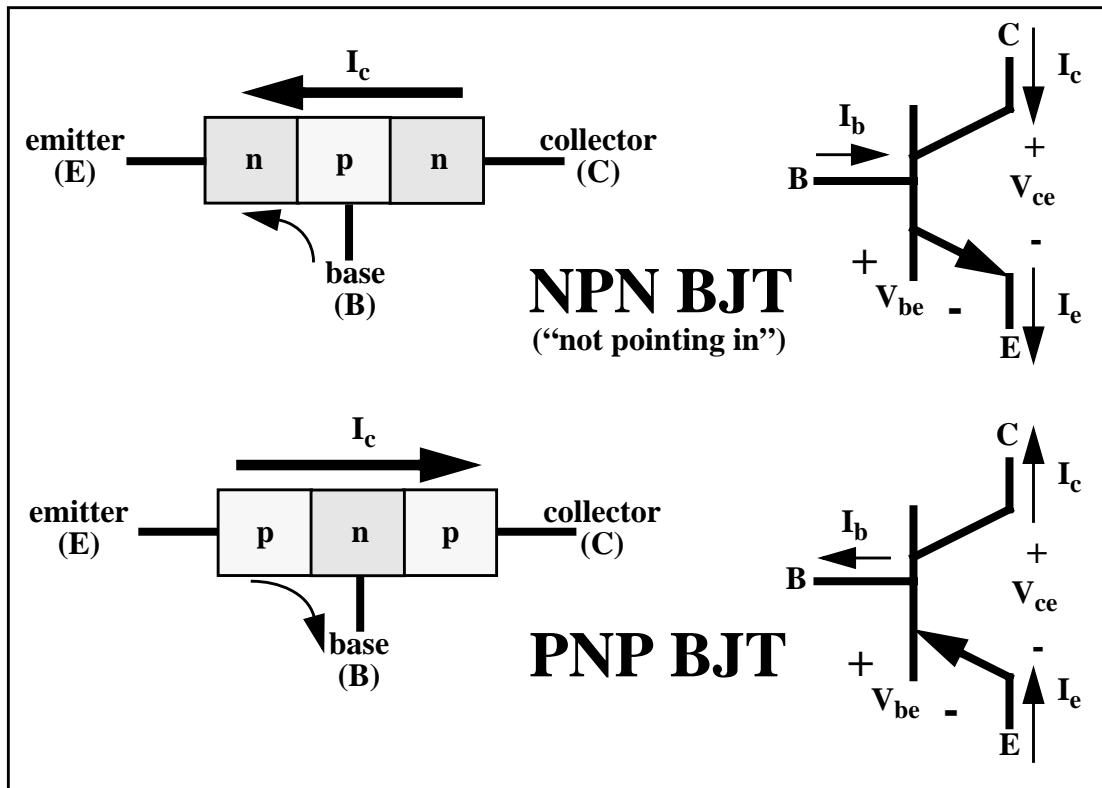


The transistors we will examine are called bipolar junction transistors (BJTs). These transistors are described as *bipolar junction* transistors because they contain two pn-junctions; each one like a diode, but arranged back-to-back.



Shown above are the schematic symbols and reference voltage and currents for both NPN and PNP BJTs. Reference voltages and currents are defined identically for both NPN and PNP transistors, even though these symbols represent different types of transistor. You should become familiar with the voltages and currents around the BJT.

The separate PN junctions can be checked to test a BJT transistor. If the emitter-base, and collector-base junctions each show correct diode behavior, the BJT is not seriously damaged. This is a very simple test, but can form a “go-no-go” test for the BJT.