

Answer Key: Lesson 9 Introducing Transistors

1. The transistor is the basic electronic switch
2. Absolutely not. The TO 92 package is just a package. See Appendix B in the book.
3. With the flat face towards you and legs down, left to right, Enjoy British Columbia.
Whenever I think of this silly cue, it reminds me of Monty Python's Lumberjack Song(Look up the reference).
4. For the TO-92 package, the center leg is the base.
5. a)Direction of the current flow, pointing towards ground. b)It is always drawn on the emitter side.
6. Read the number. If you really want to be impressed, this website cross references transistors. <http://www.alldatasheet.com/> Enter the term “2n3906” into the search box.
7. The pressure is in the system, whether the valve is on or off.
8. The capacitor is providing both voltage and current (power) to the transistor.
9. V+ to Diode, to Transistor (Collector => Emitter), to resistor, then LED.
10. You have got to do the work on this yourself.
 - a) The answers will vary widely from one system to the next depending on the voltage available.
 - b) The 100 uF cap will hold the LED on 8 to 10 times longer than the 10 uF cap.
 - c) The 1000 uF cap will hold the LED on nearly 10 times longer than the 100 uF cap.