

## Well-Grounded Symbols

Figure 3.15 includes four different symbols for "Grounds" which can be confusing. The upper right ground symbol in Figure 3.15 represents a connection directly to the Earth. Some circuits require a connection to the metal enclosure or *chassis*, the upper left-hand ground symbol. The chassis may or may not be connected to an earth ground.

Within a piece of equipment the triangular ground symbol on the bottom left generally indicates a connection for current to flow back to the power supply. This is usually referred to as *circuit common* or just *common*. If an A or D is added to the triangle, the circuit has digital (D) computing components (such as microprocessors) as well as circuits that handle analog signals (A). By keeping the return connection to the power supply separate for each type of circuitry, the analog signals are kept free of noise from the digital circuits.

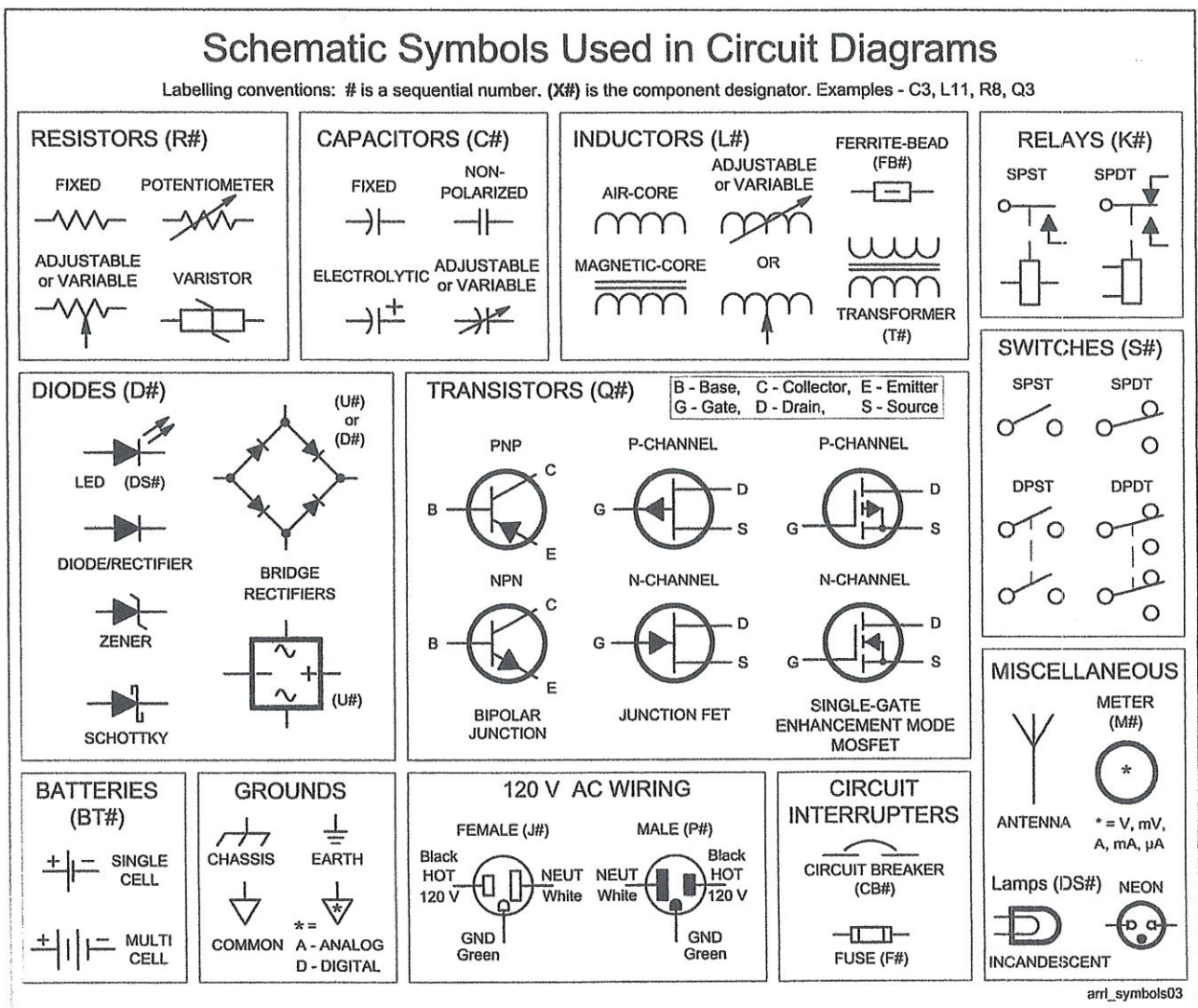


Figure 3.15 — Symbols are used when drawing a circuit because there are so many types of components. Radio and electrical designers use them as a convenient way of describing a circuit.