Universal Flasher Circuit

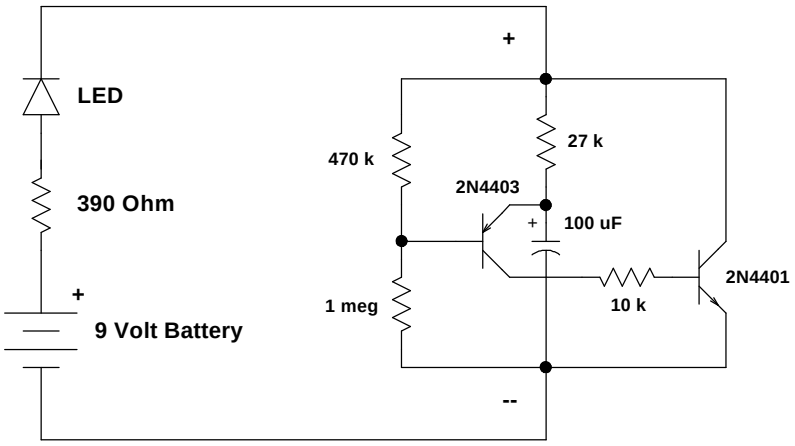

Figure 1: Two-transistor lamp flasher.

The two-transistor flasher circuit is a most versatile circuit and will prove useful in a surprising number of circumstances. Notice that it is a two-wire circuit which simply connects in series with the load (in this case, the LED). The circuit scales easily from microamps to amps and from microseconds to minutes. The on-time may be increased by adding a resistor in series with the base of the NPN as long as the resulting base current is sufficient to saturate the transistor. Modulation may be applied to the base of the PNP for frequency modulation or on-off control. The flasher can be used as a two-terminal device to drive a power transistor (with a suitable series resistor) or a relay for high power applications. Fig. 2 shows some variations for higher power flashing and using a mosfet power transistor.

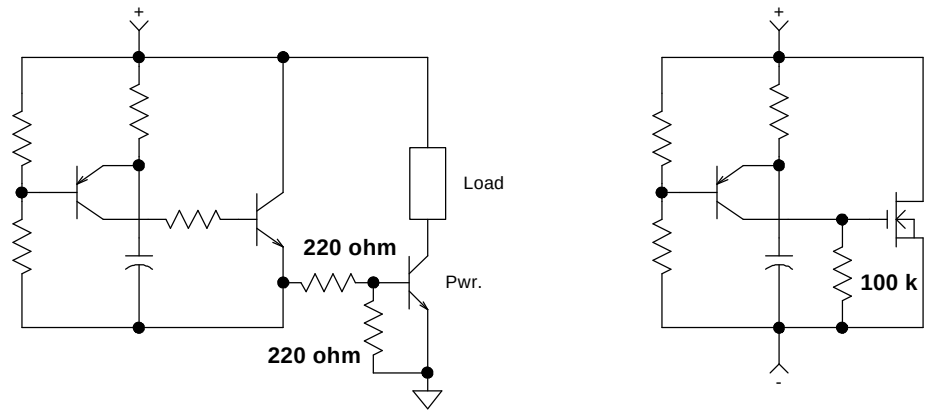

Figure 2: Some typical flasher connections.