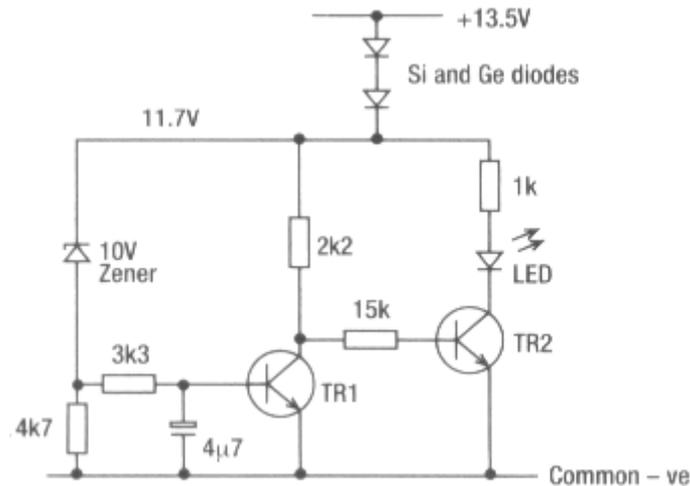


Under Voltage Detector



Eric Christer, Z21FO, suggests that the simple under-voltage-detector arrangement shown may be useful to others.

He writes 'I use the device with a 13.5V regulated power supply. It also detects a power supply overload condition when the voltage regulation is at its limit.

'Silicon and/or germanium diodes in series provide a voltage drop and are selected to adjust the required voltage setting of the detector. This could be about 0.1 to 0.2 volts less than the regulated supply voltage. (The forward voltage drop across a germanium diode is about 0.2v, across a silicon diode about 0.7v - G3VA) There is a hysteresis effect in the circuit so the LED will be either full on (indicating an under voltage) or off. As a guide, in my case, 11.7v was measured at the end of the diode string with the diodes that I used.

'On first switching on the power supply, the electrolytic capacitor at the base of TR1 causes the LED to light up momentarily. Any high-gain-signal silicon transistors may be used'