



For TTL, use:

$$R_p = 10 \text{ k}\Omega$$

$$R_b = 2.2 \text{ k}\Omega$$

$$R_d = 330 \text{ }\Omega$$

$$Q_H = 2N3904$$

$$Q_L = 2N3906$$

Figure 3: Dual-state logic probe. The LED labeled HIGH lights if V_p is connected to logic HIGH, and the LED labeled LOW lights if V_p is connected to logic LOW.