

### 5.3 Step-by-Step PCB Layout Guidelines

5.3.1 GND/VCC connection, the bypass capacitor (as well as  $R_{EXT}$  resistor) should place as close to the IC as possible (#1), especially the GND pin of the cap/res should be close to the IC (#2). After finishing the two wires to the IC, also the power trace from the connector/other power source should consider first (#3).

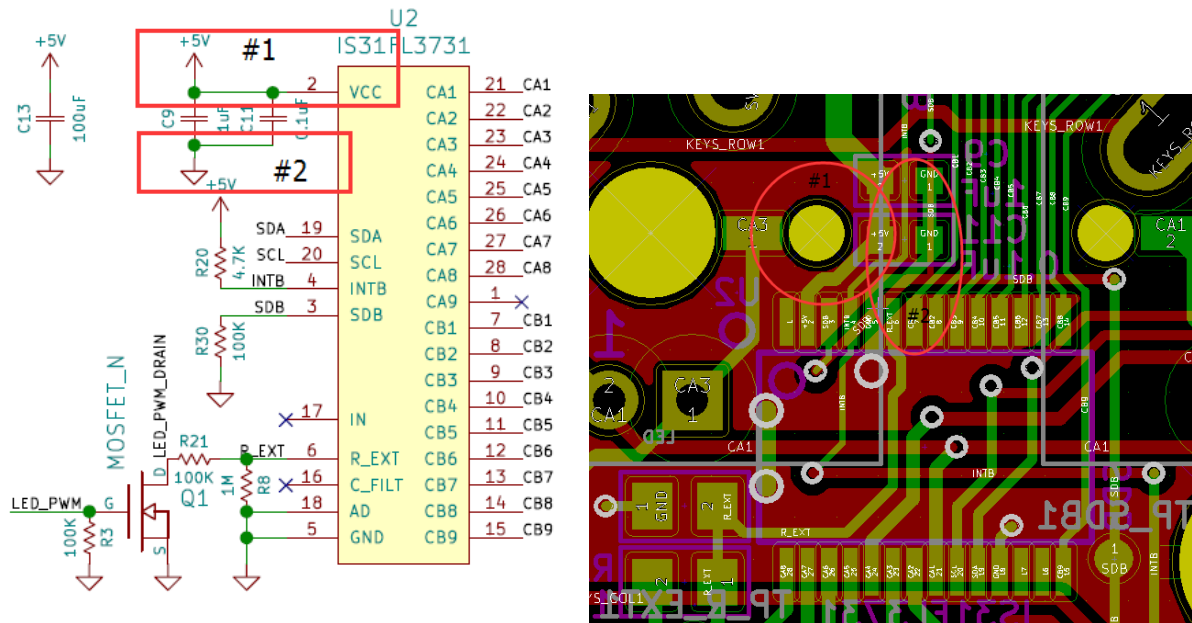
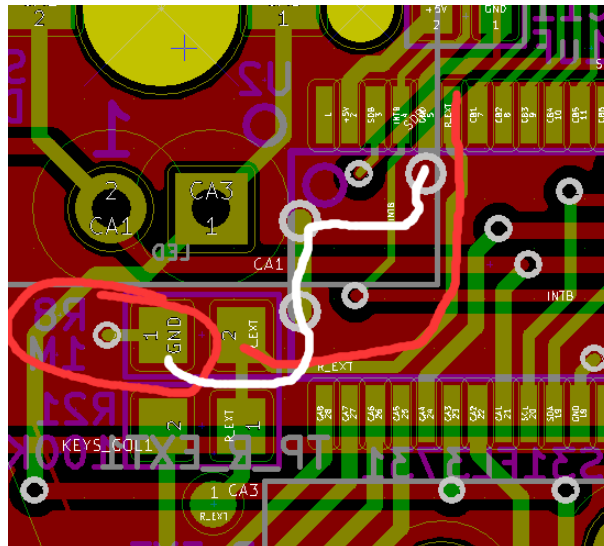
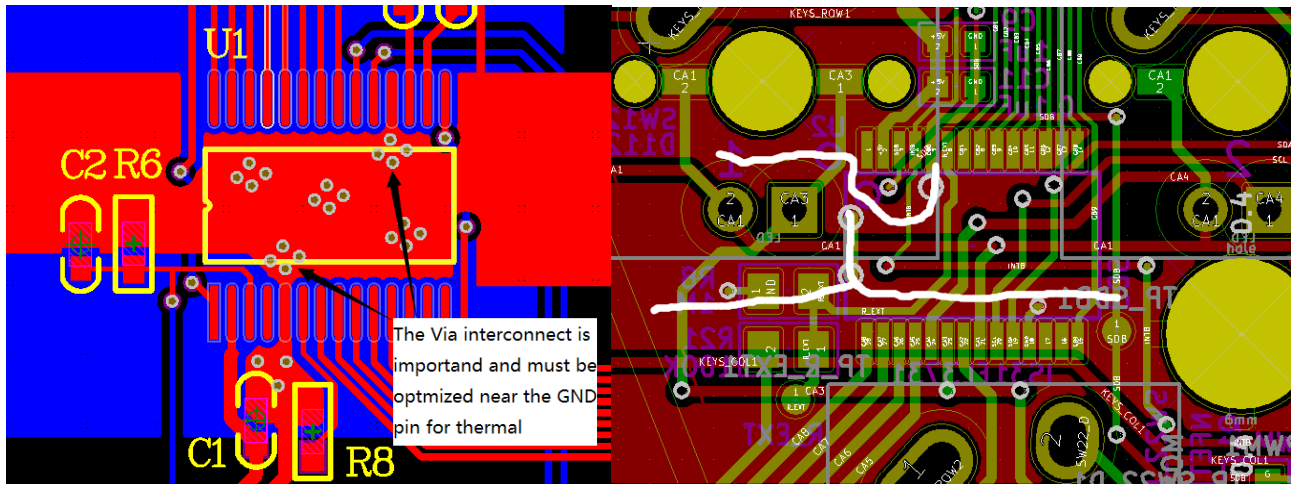


Figure 1 GND/VCC connection

5.3.2  $R_{EXT}$  connection, as the bypass capacitor places as close to the IC as possible, especially the GND pin of the res should be close to the IC.



5.3.3 Thermal dissipation consideration, IS31FL3731-SALS2 doesn't have thermal pad so the chip could be very hot if power is large. So do consider the ground area connects to the GND pin. Other traces should keep away and ensure the ground area below the package is integrity, also the back layer, should also be considered, the via interconnect the top-layer and bottom-layer is also important and must be optimized near the GND pins for thermal.



**Figure 2** Ground thermal dissipation