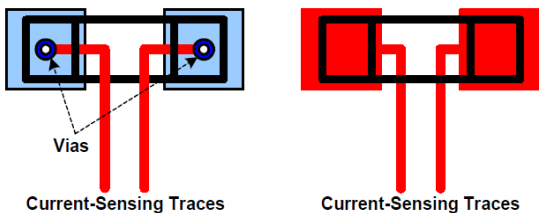


8. Layout

Pin #	Pin Name	Layout Guidelines
2	CC1	Route the trace with sufficient width. Place decoupling capacitor to filter the noise. Renesas recommends placing the charger CC pins as close to the USB connector as possible, avoid stubs on the CC lines, and route the CC lines with about the same length.
26	CC2	
3	RD1	Connect to CC1, if dead battery Rd needs to be supported.
25	RD2	Connect to CC2, if dead battery Rd needs to be supported.
8	GPIO1	Digital pin, open-drain, push-pull output or input. No special consideration.
7	GPIO2	
6	GPIO3	
5	GPIO4	
9	OCP#	Digital pin, open-drain output. No special consideration.
20	SNK_DISCHG	Run a dedicated trace from the internal sink power rail to the pin.
32	PROCHOT#	Digital pin, open-drain output. No special consideration.
10	PROG	Signal pin. Place the PROG programming resistor in the general proximity of the controller.
29	SDA	Digital pins. No special consideration. Run the SDA and SCL traces in parallel.
28	SCL	
31	ALERT#	Digital pin, open-drain output. No special consideration.
19	VSNK_SRC	Run this trace with sufficient width in parallel fashion with the VSNK_GATE trace.
18	VSNK_GATE	Run this trace with sufficient width in parallel fashion with the VSNK_SRC trace.
22	VSRC_SRC	Run this trace with sufficient width in parallel fashion with the VSRC_GATE trace.
21	VSRC_GATE	Run this trace with sufficient width in parallel fashion with the VSRC_SRC trace.
23	VSRC_BOOT	Connect to VSRC_SRC through a capacitor.
16	CSIN	Run two dedicated traces with sufficient width in parallel (close to each other to minimize the loop area) from the two terminals of the adapter current-sensing resistor to the IC. Place the Differential mode and common-mode RC filter components in the general proximity of the controller. Route the current-sensing traces through vias to connect the center of the pads or route the traces into the pads from the inside of the current-sensing resistor. The following drawings show the two preferred ways of routing current-sensing traces. 
15	CSIP	
14	VBUS	Run a dedicated trace from the VBUS to the pin.
12	VSYS33	Run a dedicated trace from the system to the pin.
30	VCONN_POWER	Place the decoupling capacitor in the general proximity of the controller. Route the trace with sufficient width.
13	VDD33	
4	VDD25	
24	GND	Connect this pin to the ground plane.
1, 7, 17, 23	NC	No connection. Although open, soldering is required.