

	JP1		JP2
SDA	1	R1	1
SCK	2	R2	2
MOSI	3	R3	3
MISO	4	R4	4
✗ GND	5	C1	4
RESET	6	C2	5
3.3V	7	C3	6
	8	C4	7
			8

MODULE RFCS22

MODULE KAYPAD 4X4

[illegible]

The diagram shows a single NPN transistor (Q1, C1815, LS1) used to drive both a speaker and an LED. The base of the transistor is connected to a signal source labeled 'SPEAKER' through a resistor R1 (1k). The emitter is connected to ground (GND). The collector is connected to VCC through a resistor R2 (1k) and to the speaker. The LED is connected to the collector through a resistor R3 (1k) and to ground (GND) through a resistor R4 (1k).

The diagram shows a two-stage voltage regulation circuit. The first stage is a 12VDC input connected to the IN pin of an LM7805 (IC1) voltage regulator. The LM7805 is configured with its GND pin to ground and its OUT pin to a 5VDC output. This 5VDC output is connected to the IN pin of a second voltage regulator, the LM1117-3.3V (U2). The LM1117-3.3V regulator has its GND pin to ground and its OUT pin to a 3.3VDC output. Both regulators include bypass capacitors: a 1000µF/16V capacitor (C7) and a 104 capacitor (C8) for the LM7805, and a 104 capacitor (C10) and a 100µF/35V capacitor (C9) for the LM1117-3.3V. The 3.3VDC output is also bypassed with a 104 capacitor (C11) and a 100µF/35V capacitor (C12).

TRỊNH MINH PHƯƠNG
MSSV:0309181063

Board Stack Report