



BUCK_CONVERTER_5V

The diagram illustrates a 5V Buck Converter circuit. The input is connected to a 24V source (labeled 24V_IN) through a 2A fuse. The input filter consists of three capacitors in parallel: C1 (220uF), C2 (22uF), and C3 (220uF). The input voltage is also monitored by a 220R resistor (R8) connected to a +3V3 supply, with the voltage drop across it measured by an LED. The converter IC (U2, MP2359DJ-LF-Z) has its IN pin connected to the input filter, EN pin to a 100K resistor (R3) connected to ground, and BST pin to a 0.1uF capacitor (C8) connected to ground. The SW pin is connected to an inductor L1 (4.7uH) and the FB pin to a feedback network consisting of a 49K9 resistor (R1) connected to the output and a 16K2 resistor (R2) connected to ground. The output filter consists of a 33nF capacitor (C15) in parallel with the output, followed by two more capacitors in parallel: C16 (22uF) and C17 (22uF). The final output is connected to a +3V3 supply through a 22uF capacitor (C18).

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