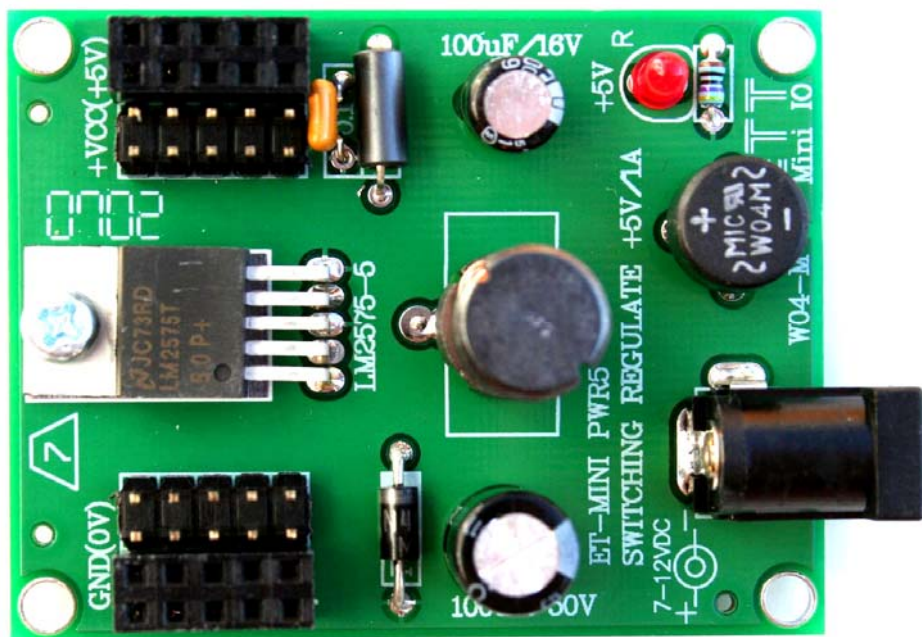


**MR-MINI-PWR5™ Mini +5V Switching Power Supply Board  
User Manual**

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# MR-MINI-PWR5™ Mini +5V Switching Power Supply Board User Manual

## Description

The MR-PWR5 is a +5VDC power supply board. There are no external components required. This makes it perfect for embedded systems that need +5V supply.

The board features innovations that set it apart from other supply board. Innovations feature like thermal shutdown, current limit protection and power-on LED. The module can be easy to interface via male or female headers. +7 to +12VDC wall adapter can be use as an input via 2.5mm power jack. The board is small can compact in size 2.20 x 1.70 inches.

The MR-MINI-PWR5 is designed base on LM2575-5 IC. It is monolithic integrated circuits that provide all the active functions for a step-down (buck) switching regulator, capable of driving a 1A load with excellent line and load regulation. The LM2575 series offers a high-efficiency replacement for popular three-terminal linear regulators. It substantially reduces the size of the heat sink, and in many cases no heat sink is required.

Other features include a guaranteed +/-4% tolerance on output voltage within specified input voltages and output load conditions, and +/-10% on the oscillator frequency. External shutdown is included, featuring 50  $\mu$ A (typical) standby current. The output switch includes cycle-by-cycle current limiting, as well as thermal shutdown for full protection under fault conditions.

## Features:

- +5VDC output
- Up to 1A output current
- High efficiency
- Thermal shutdown and current limit protection
- Power-on LED
- Small and compact in size
- Four mounting holes on each corner
- Male and female output headers



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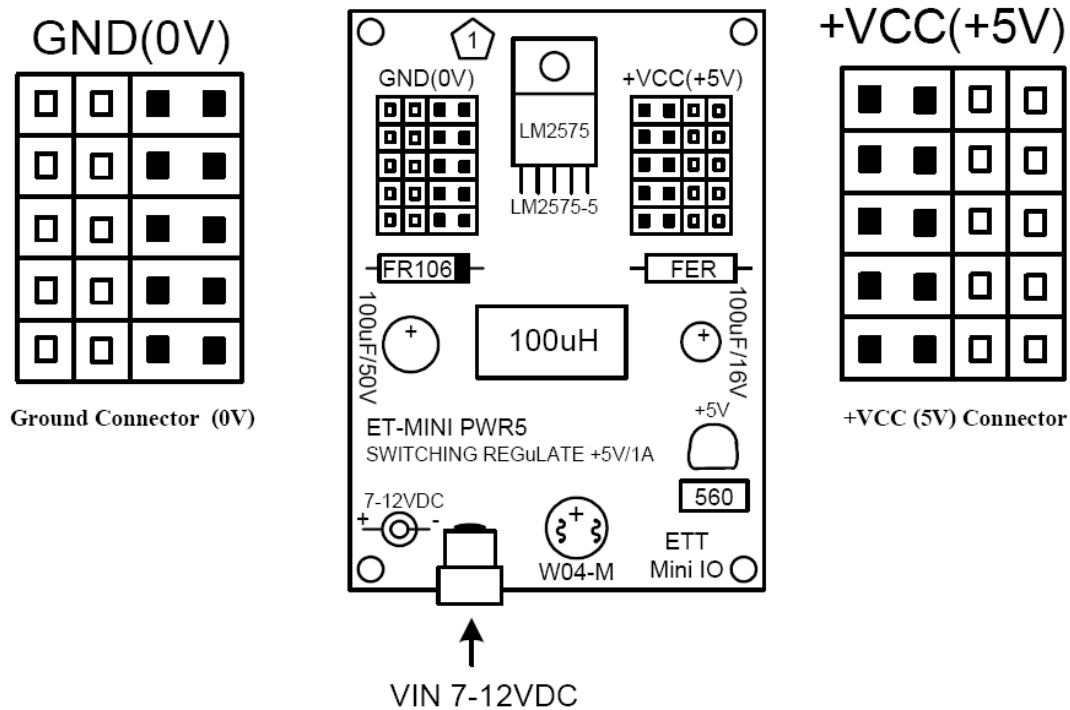


FIG 1: MR-MINI-PWR5 Board Layout

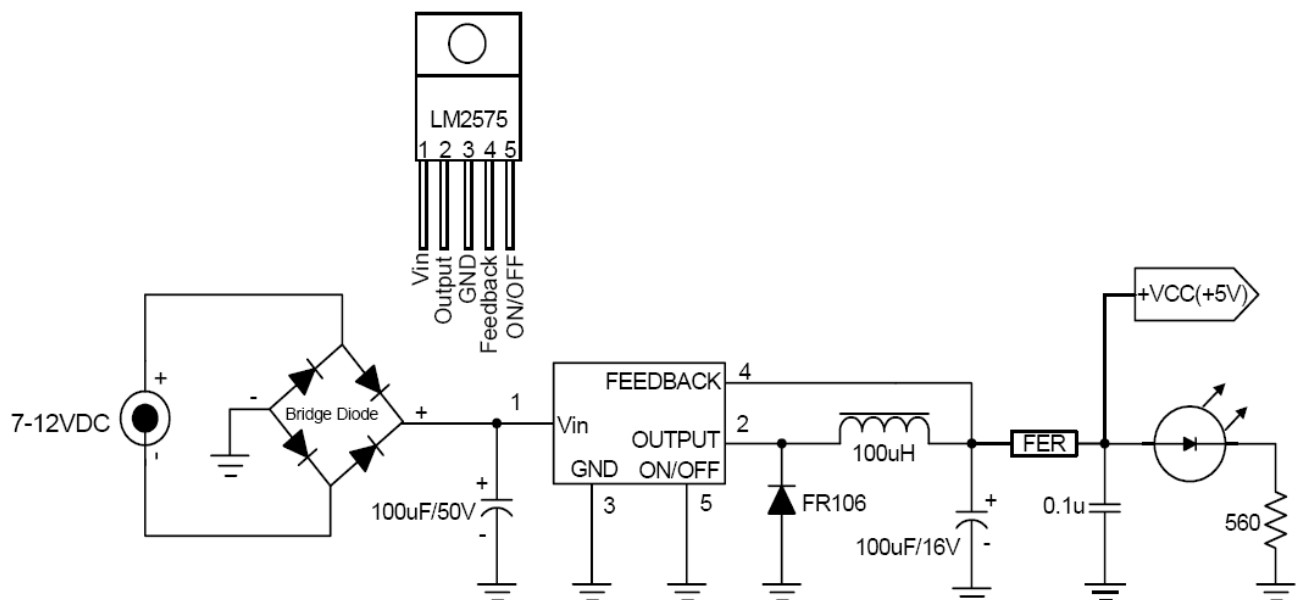


FIG 2: MR-MINI-PWR5 Schematic

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## **Notes**

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