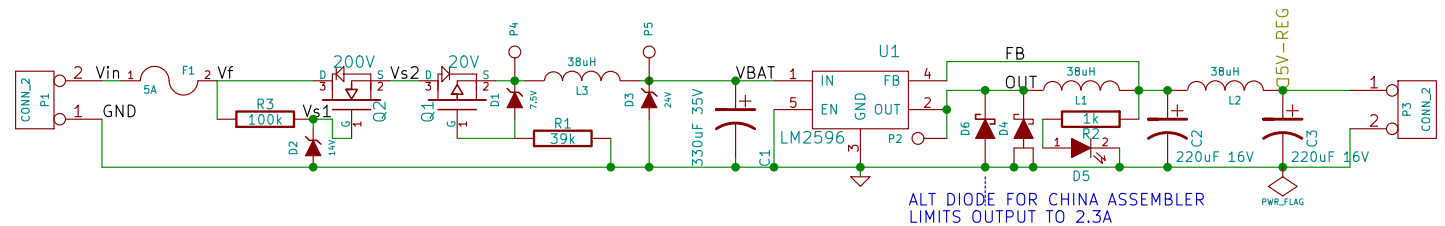


Brief overview

- F1 is a fuse, you should have an up stream fuse at the source, but in the event you over draw this board, this fuse will blow before traces burn off.
- Q2, R3, D2 preform an active transient protection. It will suppress voltages up to 200V, down to 19V.
- Q1, R1, D1 preform a reverse polarity protection. If the input signal is the wrong polarity, the gate will not conduct which will prevent current from flowing.
- L3 is an RF choke
- D3 is a second transient suppressor, it would catch faster transients allowing a brief amount of time for Q2 to preform it's duty.
- C1 is a bulk cap, it simply stores energy locally such that the regulator can draw large currents in short periods of time.
- U1, D6 L1, C2 are a buck style switching regulator, that will pull the 5V line up to 5V.
- R2, D5 is a power indicator, which simply shows you have power
- L2, C3 is a low pass filter which prevents RF ripple from getting onto the 5V node.



<https://sourceforge.net/p/rusefi/>

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File: PWR_buck_12V_switcher.sch

Title: PWR buck 12V switcher regulator

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