

5V 2.25A SMPS DC-DC Converter

Hardware Manual Rev 1r0



Works with 8V-35VDC input. Efficient switching operations allows full load operation without heat-sink even with high input-output voltage differential. Made to order 3.3V to 24VDC output and up to 80VDC input available.

FEATURES

- 8V-35VDC power input
- 3.3V-24VDC power output
- Efficient switching operations allows full load operation without heatsink.

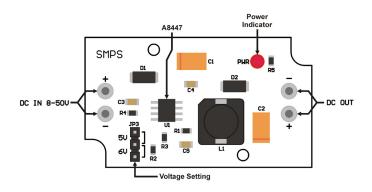


Figure 1. SMPS and its major components

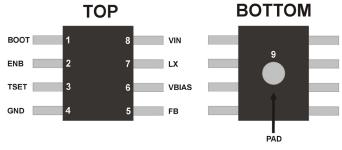


Figure 2. On-board 'U1' Pin assignments and pin numbers

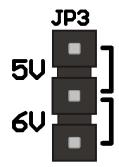
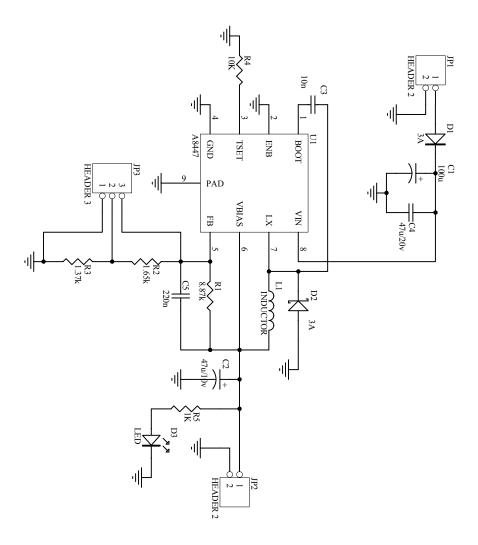


Figure 3. Voltage setting illustration

Place a jumper to set what voltage you want to use either 5V or 6V

Table 1. U1 pin descriptions

| • | • |
|-------|-----------------------------------|
| I.D. | Description |
| воот | Gate drive boost node |
| ENB | On/off control; logic input |
| TSET | Off-time setting |
| GND | Ground |
| FB | Feedback for adjustable regulator |
| VBIAS | Bias supply input |
| LX | Buck switching node |
| VIN | Supply input |
| PAD | Thermal Pad |



PCB BOARD PRESENTATION

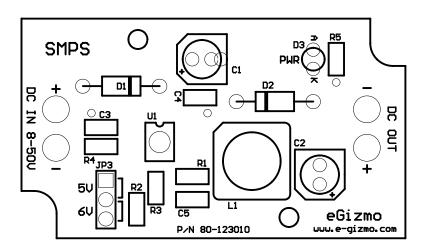


Figure 6. SMPS PCB (silkscreen layout)

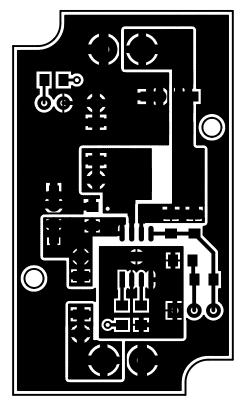


Figure 7. SMPS PCB Copper Pattern (Top Layer)

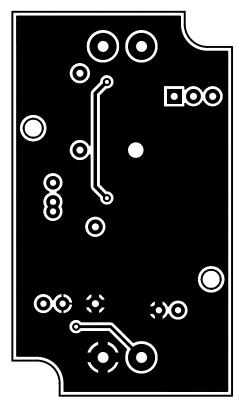


Figure 8. SMPS PCB Copper Pattern (Bottom Layer)