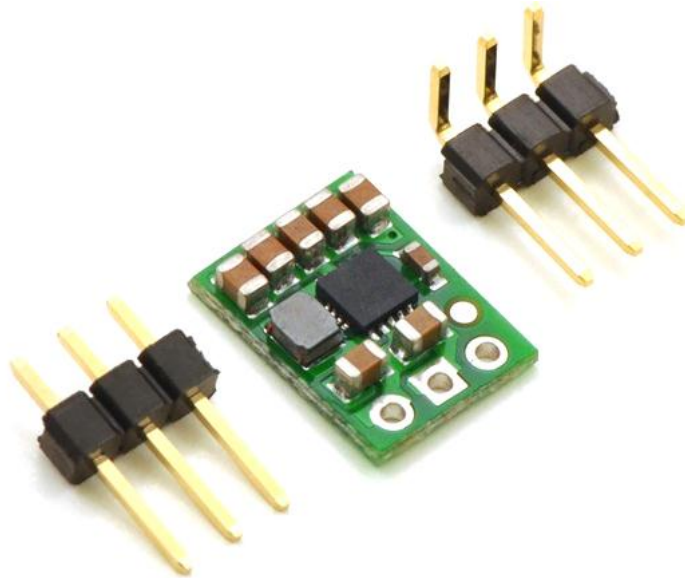


RB-Pol-207

Step-Up / Step-Down Voltage Regulator S7V7F5



The S7V7F5 switching step-up/step-down regulator efficiently produces 5 V from input voltages between 2.7 and 11.8 V. Its ability to convert both higher and lower input voltages makes it useful for applications where the power supply voltage can vary greatly, as with batteries that start above but discharge below 5 V. The very compact (0.35" × 0.475") module can supply up to 1 A when stepping down and about 500 mA when stepping up.

This flexibility in input voltage is especially well-suited for battery-powered applications in which the battery voltage begins above 5 V and drops below as the battery discharges. Without the typical restriction on the battery voltage staying above the required voltage throughout its life, new battery packs and form factors can be considered. For instance, a 4-cell battery holder, which might have a 6 V output with fresh alkalines but a 4.8 V nominal voltage with NiMH cells and a 4.0 V output with partially discharged cells, can now be used for a 5 V circuit. In another typical scenario, a disposable 9 V battery powering a 5 V circuit can be discharged to under 3 V instead of cutting out at 6 V, as with typical linear or step-down regulators.

Features

- Input voltage: 2.7 to 11.8 V
- Fixed 5V output with +5/-2% accuracy
- typical continuous output current: 1 A when stepping down; 500 mA when stepping up (Actual continuous output current depends on input voltage. See Typical Efficiency and Output Current section below for details)
- Power-saving feature maintains high efficiency at low currents
- Integrated over-temperature protection

- Small size: 0.35" × 0.475" × 0.1" (9 × 12 × 3 mm)