5 Schematic, Physical Layouts and Bill of Materials

5.1 Schematic

Vin from 4.4V to 10.5V Operational
Transients (OVP) up to 38V maximum.
Maximum input current is 1.5A

Figure 4. bq25070 EVM Board Schematic (Sheet 1 of 2)

Apply Switch JP3 to connect Pulse Generating Hardware.
Toggle S381 from the Down Position, Up then back Down
to deliver the number of Pulses selected by one shunt on jumpers 1 through 13 (Number implies # of Pulses).
Removing JP3 allows R7 to pull up the CTRL pin and disable the IC.
Programming can only be done once, unless the power is recycled or the IC is disabled and enabled.
Sheet two is the pulse hardware circuit which allows evaluation of the IC without a microcontroller.
JP3 can be removed and a system microcontroller can be used to program the IC by connecting the control signal between JP3-1 and ground.

Test point numbers correspond to the pin numbers on U1.
TP5/4/6 are omitted.
The circuit on this sheet is typically not part of the charger design.

This circuit generates the pulses to program the charge, which is normally done by the host. Use only one Shunt on JP101 through JP113. Place shunt according to desired program pulses. The 100 numbered components are part of the hardware for creating the programming pulses and are not typically part of an application.

Figure 5. bq25070 EVM Board Schematic (Sheet 2 of 2)
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