The main internal blocks are shown in Figure 3, where is reported the device block diagram. They are:

- A voltage regulator that supplies the internal circuitry. From this regulator, a 3.3 V reference voltage is externally available.
- A voltage monitor circuit that checks the input and internal voltages.
- A fully integrated sawtooth oscillator whose frequency is 500 kHz.
- Two embedded current limitations circuitries which control the current that flows through the power switch. The Pulse by Pulse Current Limit forces the power switch OFF cycle by cycle if the current reaches an internal threshold, while the Frequency Shifter reduces the switching frequency in order to strongly reduce the duty cycle.
- A transconductance error amplifier.
- A pulse width modulator (PWM) comparator and the relative logic circuitry necessary to drive the internal power.
- An high side driver for the internal P-MOS switch.
- An inhibit block for stand-by operation.
- A circuit to realize the thermal protection function.

Figure 3. Block diagram