## What is externally programmable maximum duty cycle?

## DC/DC Switching Regulators Function

Some products support a maximum duty cycle (Maxduty) setting by an external resistor connected to the DTC pin. The Maxduty value is large in case the DTC pin voltage is large and vice versa, the Maxduty cycle value is small when the DTC pin voltage is small.

The soft start function is created by an external capacitor connected to the DTC pin, during start-up the DTC pin voltage is gradually increasing. The soft start initiates from a Maxduty value of 0% and the output voltage ramps up gradually, preventing an inrush current. The soft start time can be adjusted by the capacitance of the capacitor.

