

MC33063A - functionality

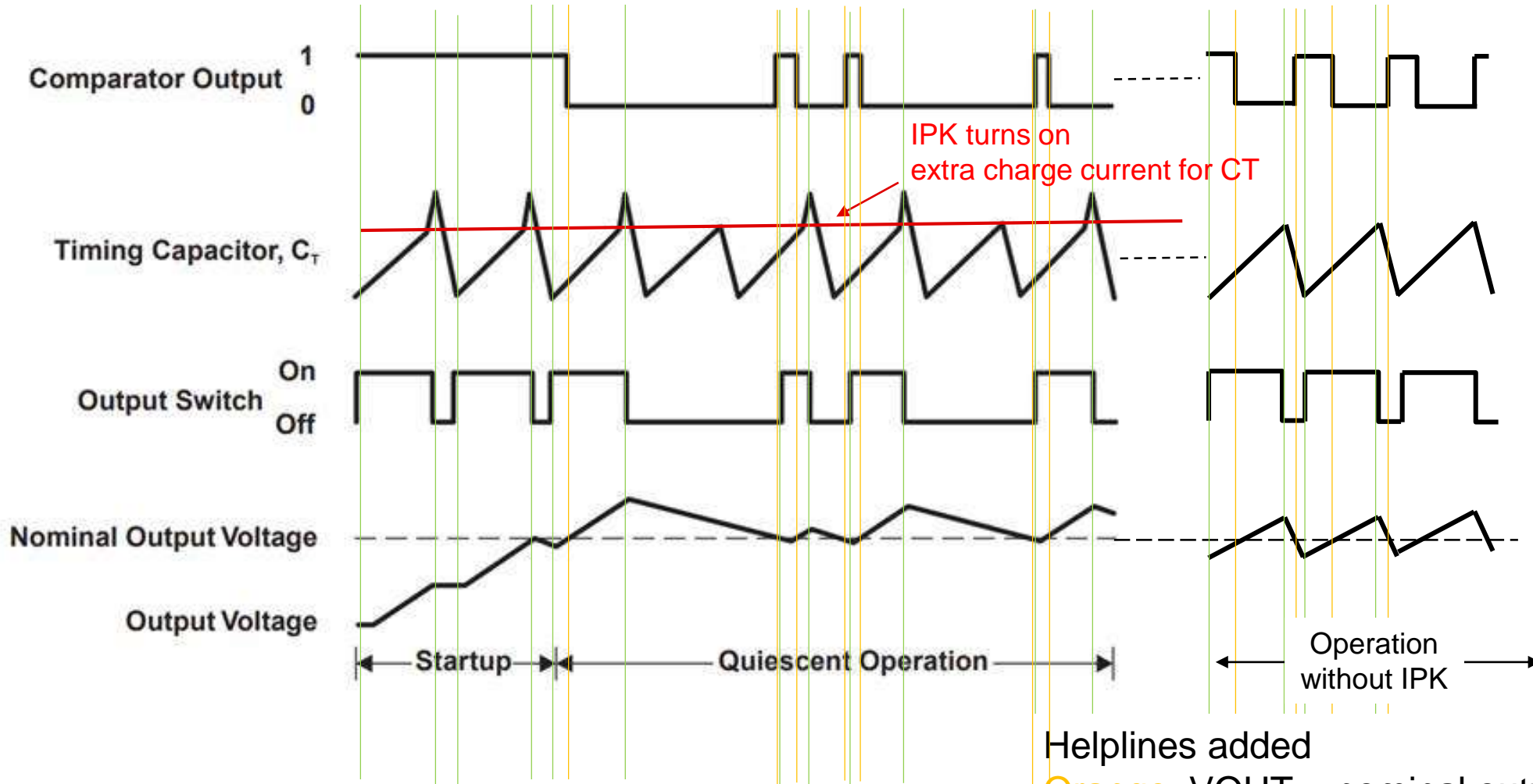
November 7, 2024

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MC33063A-Q1 – not a fixed frequency converter

- The switch is only turned on if the output voltage is below the target voltage.
- If the output voltage is lower than the target level AND the timing capacitor voltage is ramping.
- The switch keeps on until the voltage on the CT capacitor is reaching typically 1.25V.
 - If during this cycle the current limit is not triggered, no extra current is added to CT and the converter is switching with the switching cycle given only by CT.
 - If the peak current level (set by the resistor from VIN to IPK) is triggered, an additional current source is added to charge CT. This shall increase the CT voltage quickly to 1.25V to turn off the switch quicker than given by CT charge current only.

Operating waveforms



Helplines added

Orange: $V_{OUT} <$ nominal output voltage

Green: turn on and off of switch

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