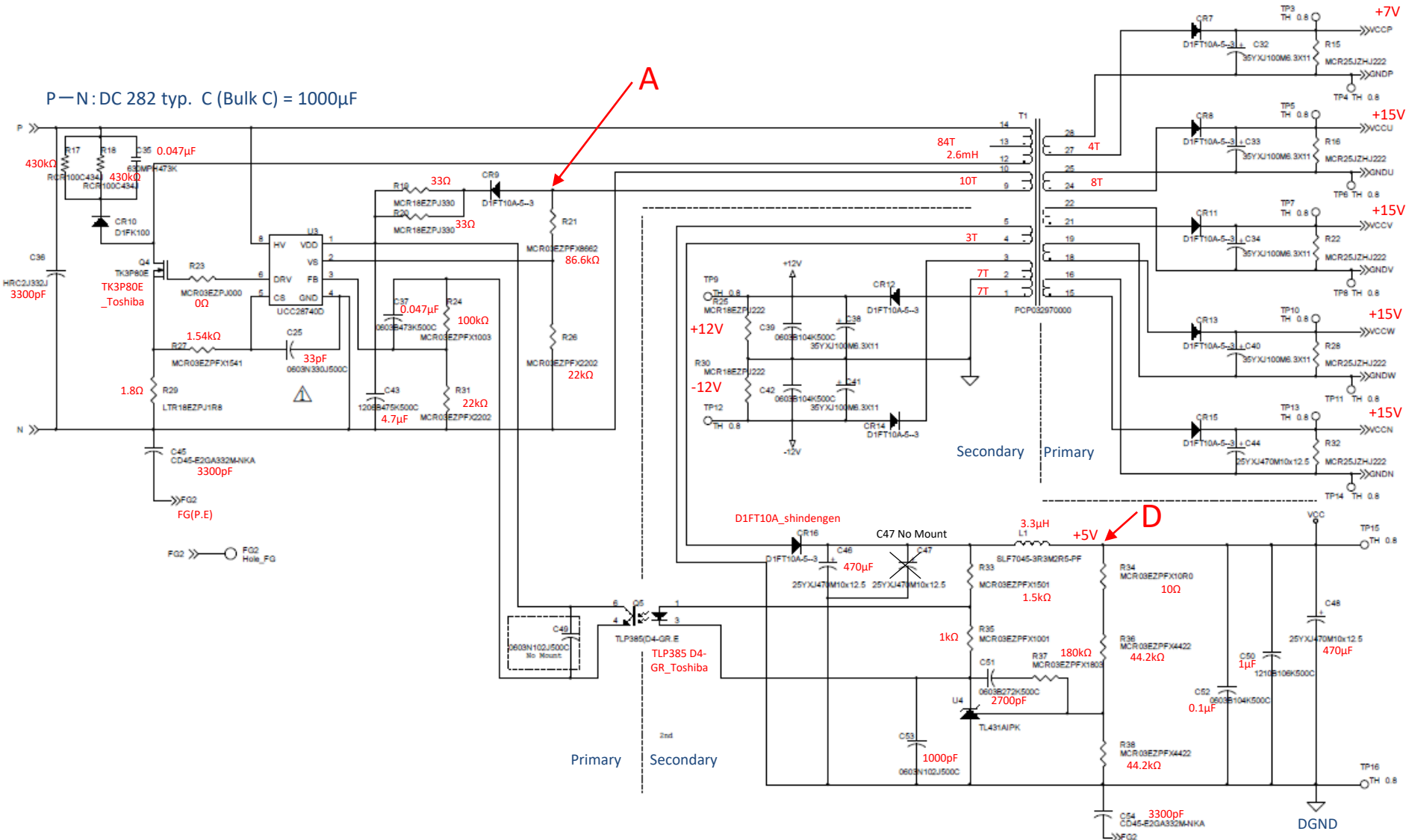


The following circuit is constructed using UCC28740.

The voltage waveforms at points D ($V_{cc} - DGND$) were observed during power-on. I have a question about this waveform.

P-N: DC 282 typ. C (Bulk C) = 1000 μ F



- Point D waveforms at Power on.

Output voltage may drop in very rare cases during power supply startup. (Some protection function may be activated and oscillation may stop.)

This phenomenon occurs more frequently when C25 (33pF) on the CS pin is removed, which suggests that the overcurrent protection is working to stop oscillation.

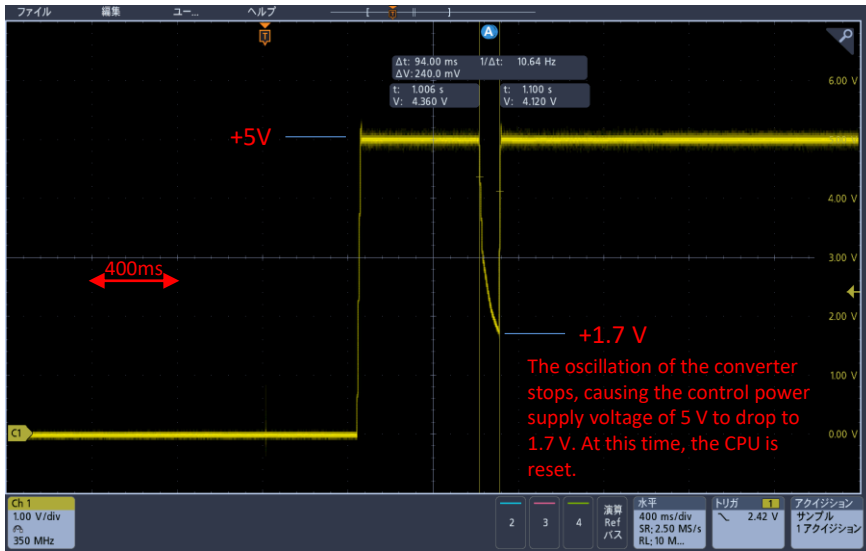


Fig.1 : Startup control power supply voltage + 5 V
Pattern1 (C25 uninstalled (0 pF))

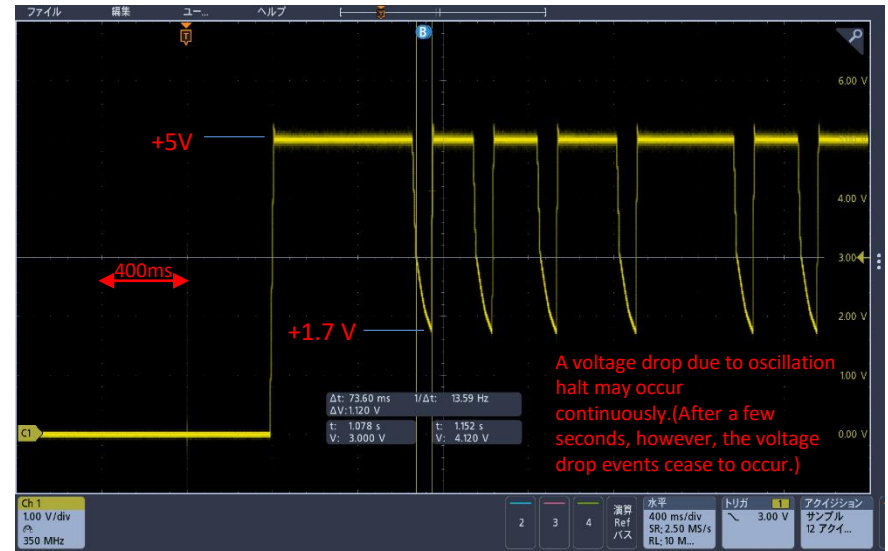


Fig.2 : Startup control power supply voltage + 5 V
Pattern2 (C25 uninstalled (0 pF))

In both cases, a voltage drop event occurs immediately after startup. Thereafter (after a few seconds), this phenomenon will no longer occur.

- Q1 I presume that the overcurrent protection is working, but are there any other possibilities?
- Q2 If the overcurrent protection is working, I think that increasing the capacity of C25 would be a countermeasure, but is there any other effective way?