

Design of Hysteresis Controlled Single-Inductor Multiple-Output DC-DC Converter

Shunsuke Tanaka, Tatsunori Nagashima, Yasunori Kobori, Kotaro Kaneya,
Takashi Okada, Takahiro Sakai, Biswas Sumit Kumar, Nobukazu Takai, Haruo Kobayashi,
Department of Electronic Engineering, Gunma University

Hysteresis Control

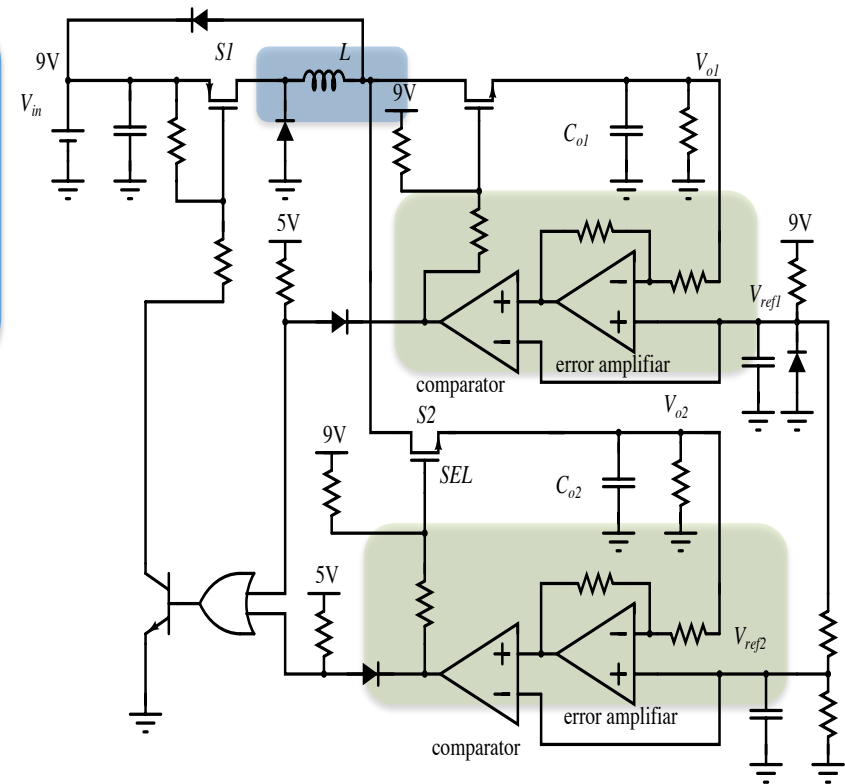
- Clock, triangular wave are NOT necessary
- Fast response

Single-Inductor Dual-Output (SIDO) DC-DC Converter

- Small size
- Low cost

Apply hysteresis control to SIDO circuit

- Small size
- Fast response
- Low cost
- Good self- & cross- regulation performance



Designed SIDO with hysteresis control