Power dissipated in regulator = \( \text{VIN} \times (\text{VIN} - \text{VREF}) \)

Nominal output 5V

Linear Regulator

Approximate voltage regulator behavior
Approximate voltage regulator behavior

Boost Converter: nominal output 5V, \(V_{IN} > V_{REG}\)

Power dissipated in regulator

Configuration: switch an choke when \(V_{IN} > V_{N0}\) and \(V_{IN} < V_{N1}\)
Approximate voltage regulator behavior

Draft notes or equations:

- Assume Vol 5V for Buck converter, nominal
- Output 5V, IN > V
- Power dissipated in regulator
- IN > 5V, P

Symbols and circuit diagrams:

- IN
- V
- Reg
- 2 ohm
- 5V
- 12.5V
- 0V
- Circuit diagram of a voltage regulator

Note: The text and diagrams are related to electronic circuits and voltage regulation.