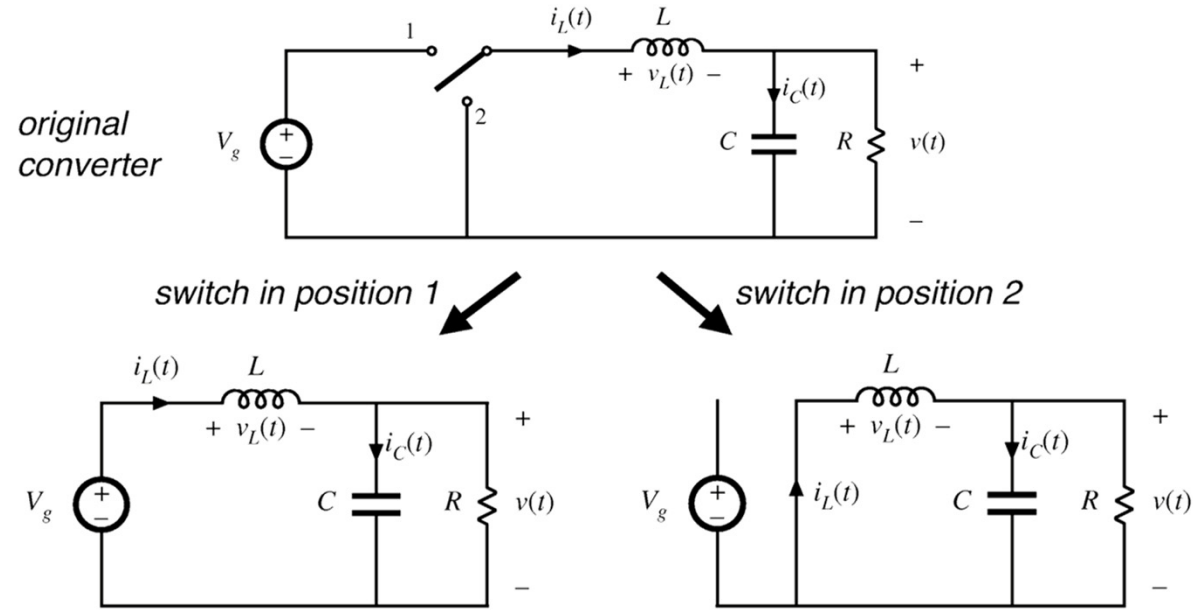
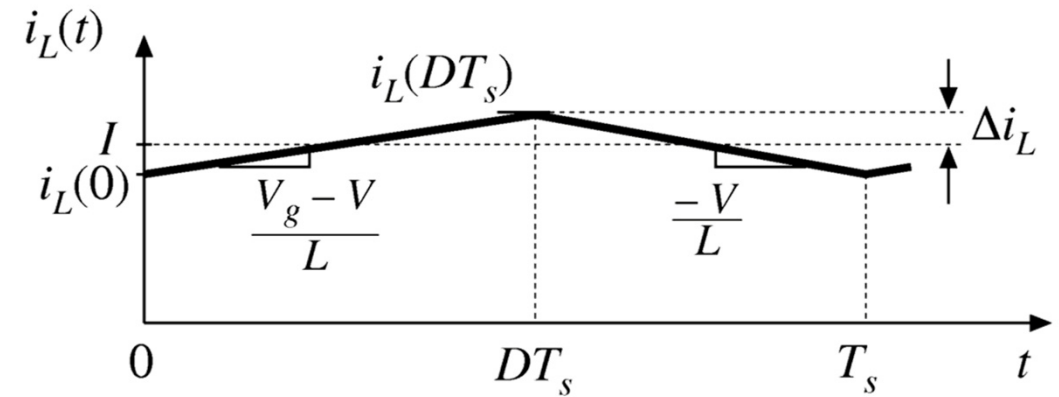


# Volt-Second Balance: Direct Application

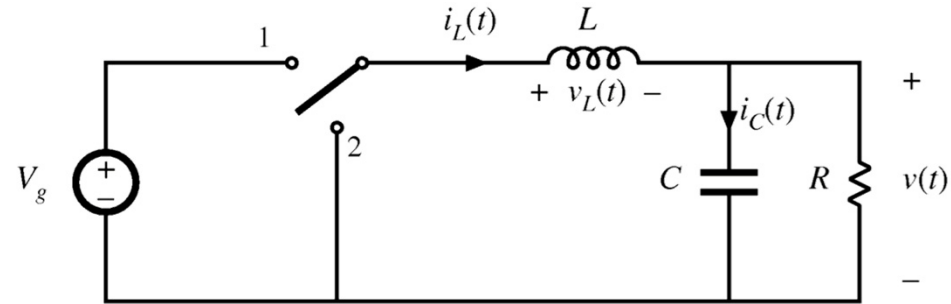


# Current Ripple Magnitude



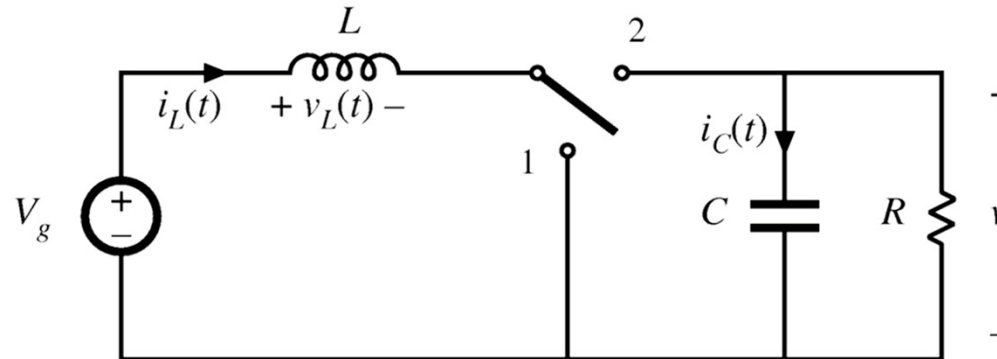
*(change in  $i_L$ ) = (slope)(length of subinterval)*

# Buck Cap Charge Balance

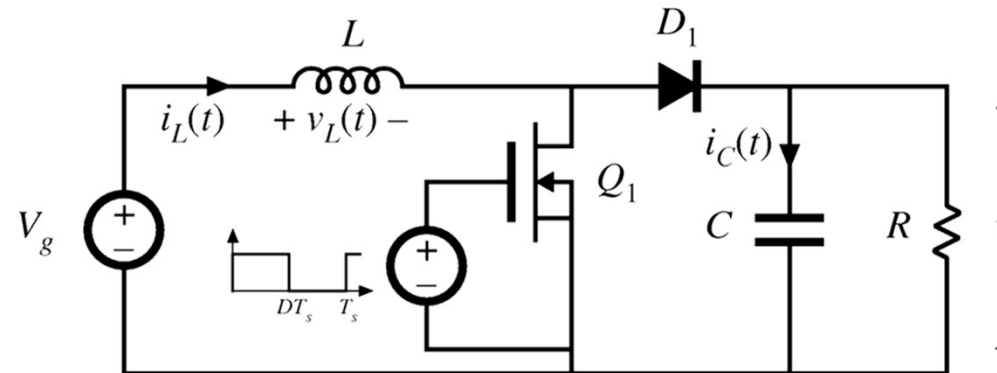


# The Boost Converter

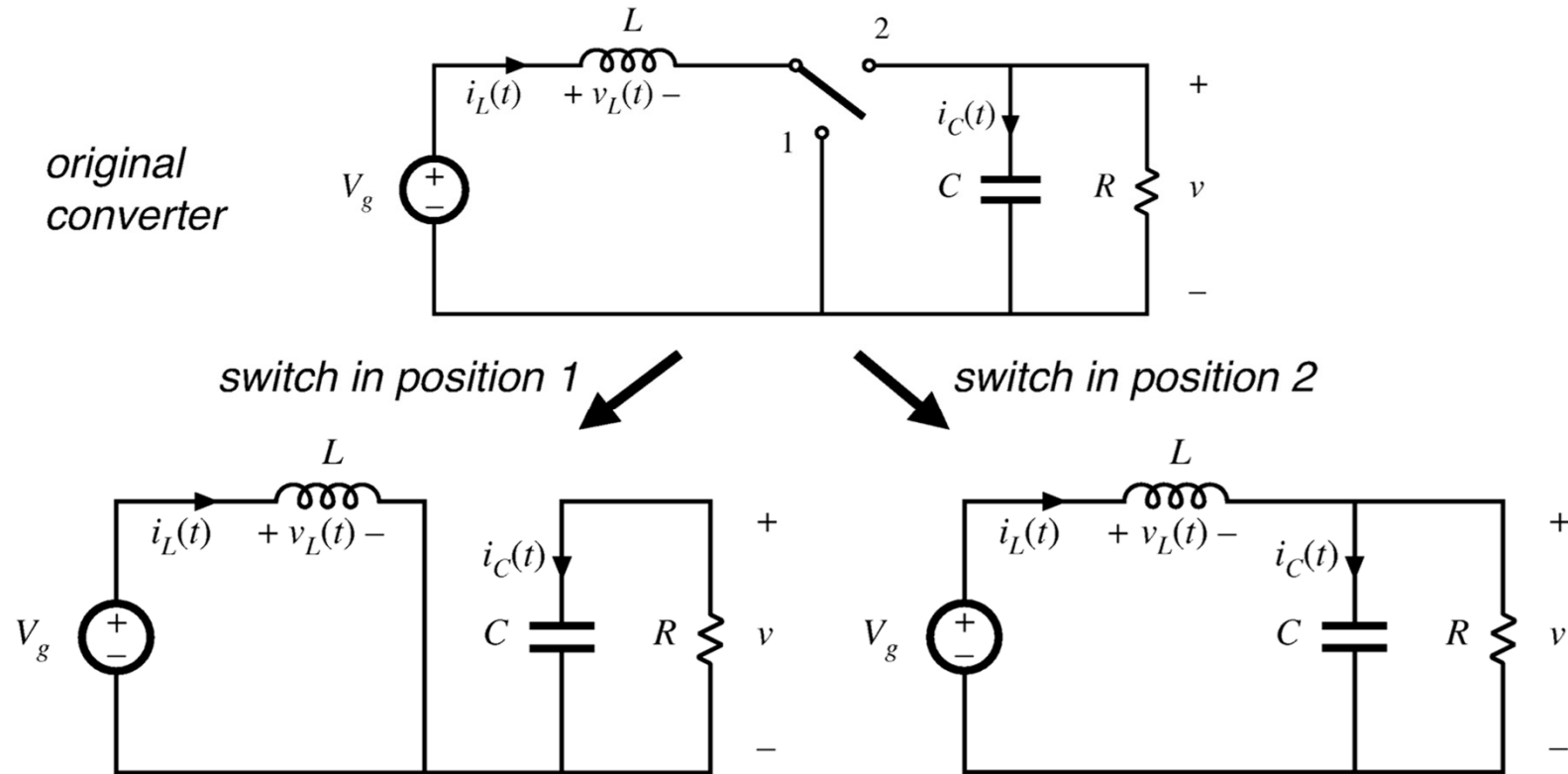
*Boost converter  
with ideal switch*



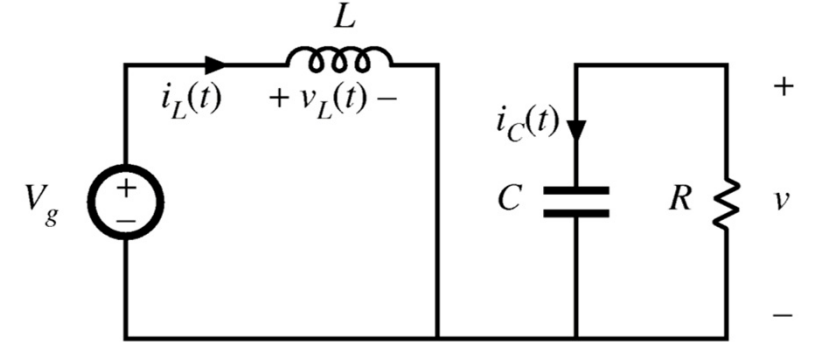
*Realization using  
power MOSFET  
and diode*



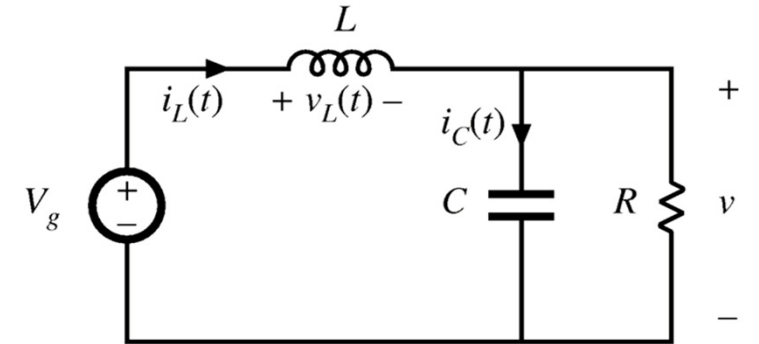
# Boost Subintervals



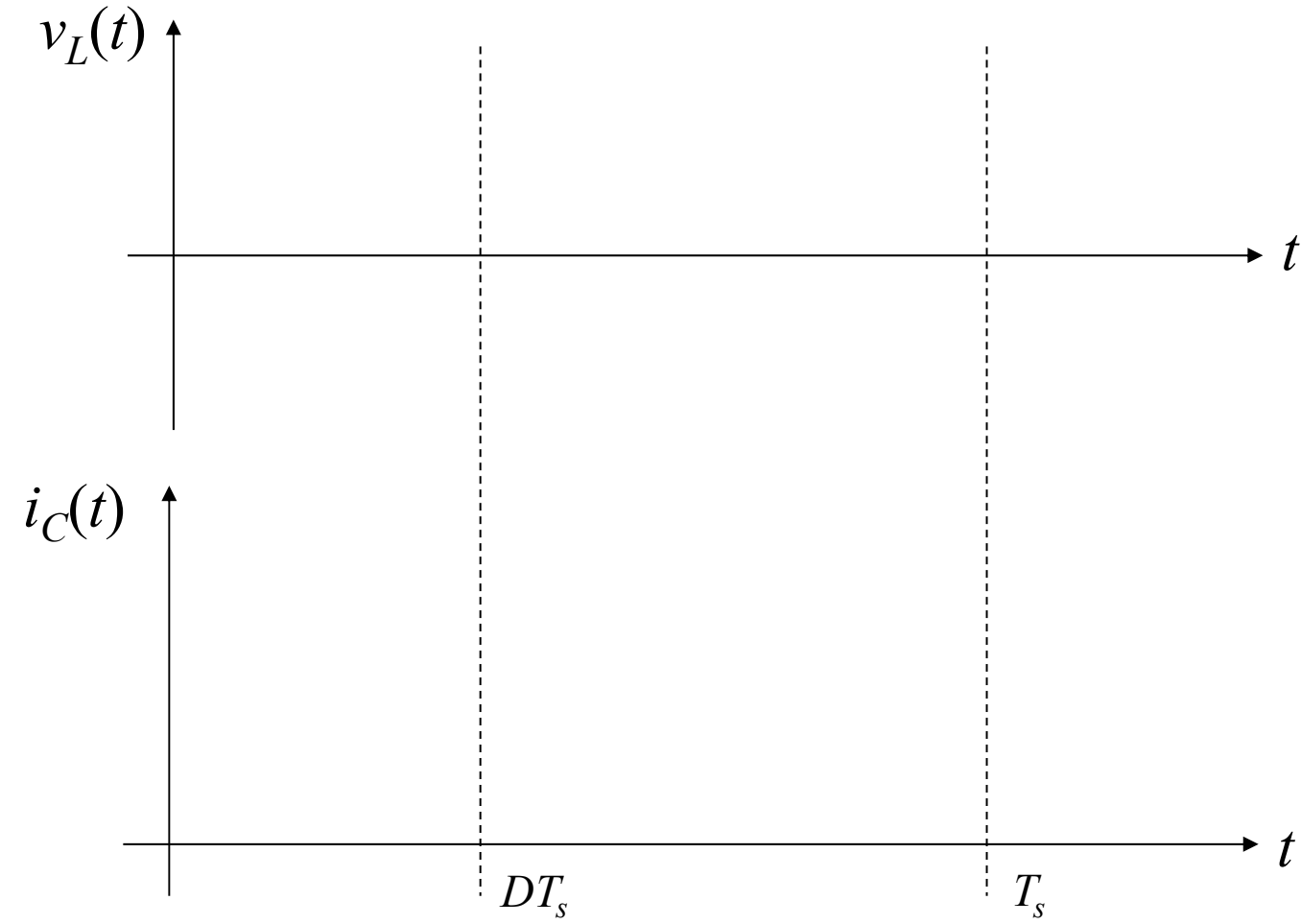
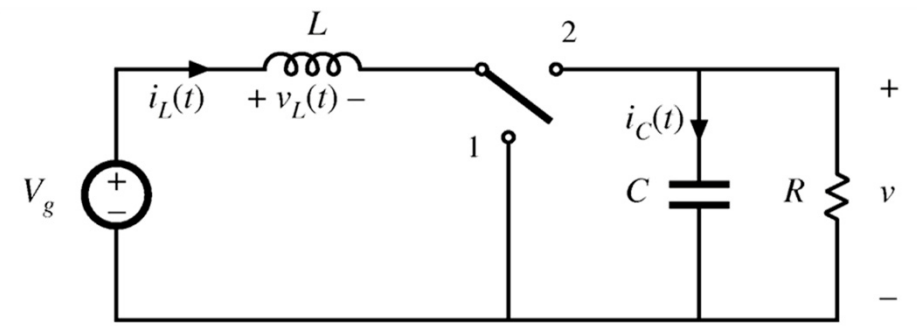
# Boost: Subinterval 1



# Boost: Subinterval 2



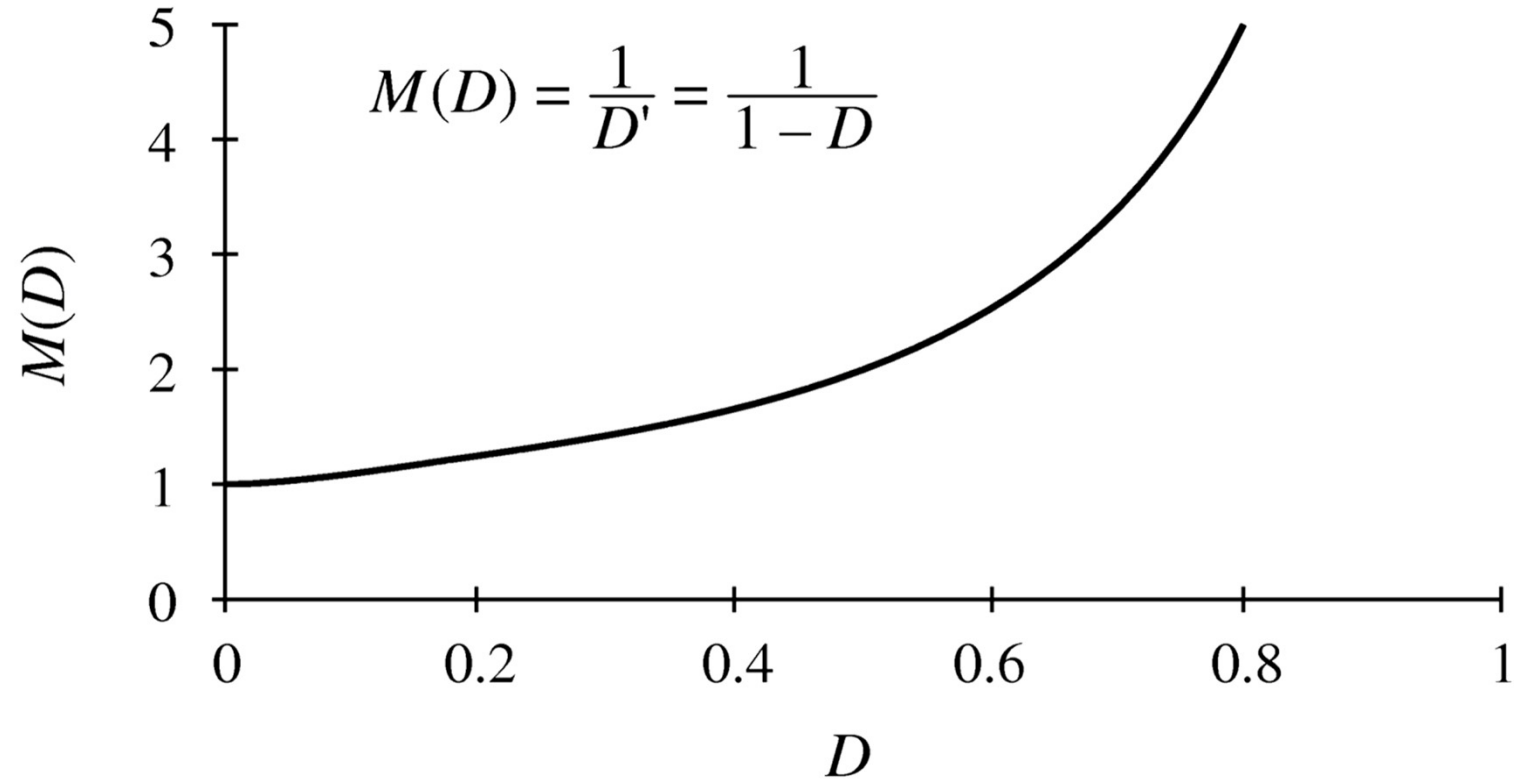
# Waveforms





# Steady State Solution

# Boost: Conversion Ratio



# Cuk Converter

